



Industria y Comercio
SUPERINTENDENCIA

Delegatura de Propiedad Industrial
División de Nuevas Creaciones

PCT
SOLICITUD

PATENTE DE INVENCION

05-44525

21. EXPEDIENTE No.

54. TITULO

SUELA IMPERMEABILIZADA Y TRANSPIRANTE PERFECCIONADA PARA
CALZADOS Y SU PROCEDIMIENTO DE FABRICACION

51. CLASIFICACION INTERNACIONAL

71. SOLICITANTE

GEOX S.P.A.

DOMICILIO

Montebelluna, Località Biadene, Italia.

74. APODERADO

EMILIO FERRERO

C.C. 438,019 de Usaquén.

22. BOGOTA, D.C.,



Industria y Comercio
SUPERINTENDENCIA

PETITORIO

SUPERINDUSTRIA Y COMERCIO

Radicación: 85044525 00030060

Folios: 76

Fecha (AMB): 2005-05-18 16:59:41

Tramite: 811 PCT-PATENT 379 FASE NACI 411 PRESENTA

Dependencia: 2020 DIVISION DE NUEVAS CREACIONES

FORMULARIO UNICO DE SOLICITUD DE PATENTE PCT ENTRADA EN FASE NACIONAL

SOLICITUD DE:

1

☒ Patente de Invención.

☐ Patente de Modelo de Utilidad.

☐ Capítulo I.

☒ Capítulo II.

2

**SOLICITANTE
(71)**

Nombre: **GEOX S.P.A.**
sociedad constituida y existente bajo las
leyes de Italia
Dirección: Via faltrina Centro, 16.
31044 Montebelluna,
Località Biadene -(Treviso),
Italia
Domicilio: Montebelluna, Località Biadene,
Italia

IDENTIFICACIÓN

C.C. ☐ NIT ☐

C.E. ☐ Otro ☐

Cual _____

Número _____

3

**REPRESENTANTE
O APODERADO**

Nombre: **EMILIO FERRERO**
Dirección: Carrera 4ª. No. 72-35
Teléfono: 347 38 11
Fax: 211 88 50
E-mail: clientes@camyp.com.
Domicilio: Bogotá, Colombia.

IDENTIFICACIÓN

C.C. ☒ NIT ☐

C.E. ☐ Otro ☐

Cual _____

Número 438.019 T.P 31.929

4

**INVENTOR (ES)
(72)**

1. **Marlo POLEGATO MORETTI**
Via Antonini 7,
I - 31035 Crocetta del Montello,
Italia

2. **Antonio FERRARESE**
Via Rimembranza, 23
37063 Isola Della Scala
Italia

5

PCT (86)

Solicitud Internacional No. PCT/EP2003/011307

Fecha: 13 de octubre de 2003

Publicación Internacional No. WO 2004/034830 A1

Fecha: 29 de abril de 2004

6

Título (54)

**SUELA IMPERMEABILIZADA Y TRANSPIRANTE PERFECCIONADA
PARA CALZADOS Y SU PROCEDIMIENTO DE FABRICACION**

7

Clasificación Internacional (51) A43B 7/12

8

Prioridad

SI ☒ NO ☐

(33) País de Origen

IT

(32) Fecha

15 de octubre de 2002

(31) Número de Solicitud

PD2002A000264

9

Comprobante de pago No.: 05-31.923

Fecha: 02 de mayo de 2005

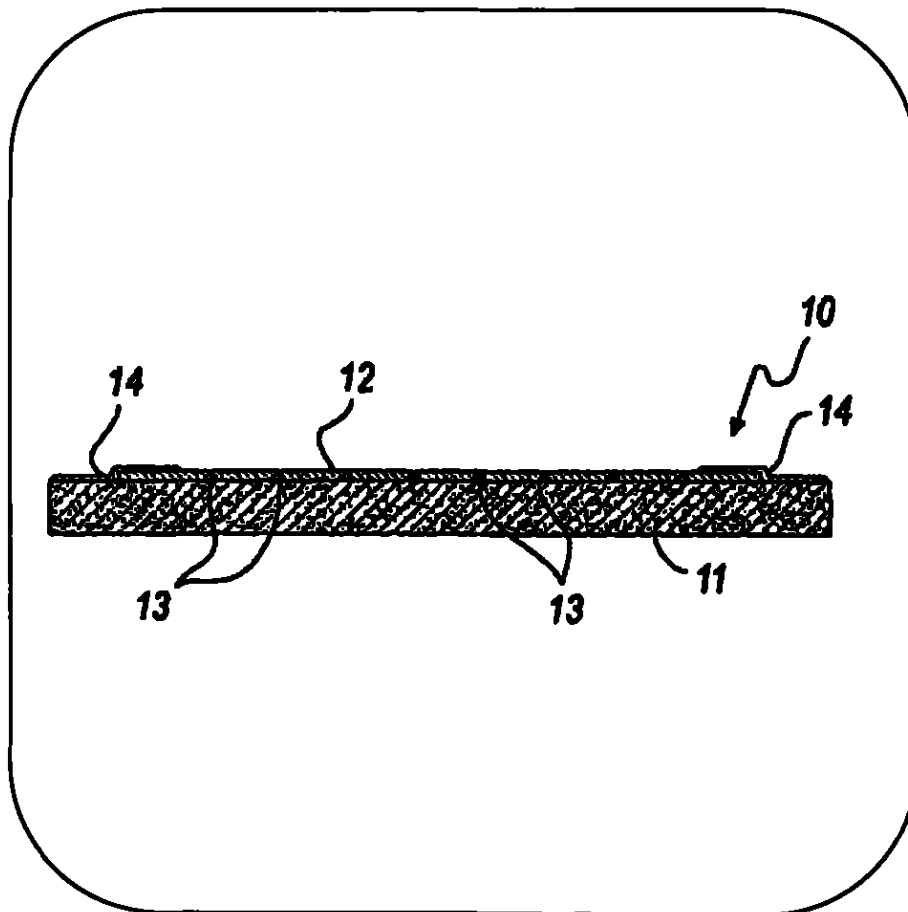
10

An xos:

- ☒ Comprobante de pago de la tasa de presentación de la solicitud por \$ 443.000.00.
- ☐ Comprobante de pago por reivindicación de prioridad.
- ☒ Documento que acredita la existencia y representación legal cuando el solicitante sea persona jurídica.
- ☒ Poderes, si fuere el caso.
- ☐ Documento de cesión del inventor al solicitante o a su causante.
- ☐ Declaraciones.
- ☒ Copia de la solicitud internacional. (Resumen, descripción, reivindicaciones, dibujos)
- ☒ Traducción de la solicitud internacional al castellano. (Resumen, descripción, reivindicaciones, dibujos)
- ☒ Copia del examen preliminar efectuado por la IPEA.
- ☒ Traducción del examen preliminar efectuado por la IPEA.
- ☐ De ser el caso, copia del contrato de acceso.
- ☐ De ser el caso, documento que acredite la licencia o autorización de uso de conocimientos tradicionales de las comunidades indígenas.
- ☐ De ser el caso, certificado de depósito del material biológico.
- ☒ Arte final 12x12
- ☐ De ser el caso, información sobre otras solicitudes de patente o títulos obtenidos en el extranjero por el mismo titular o su causante, relacionadas parcial o totalmente con la invención de esta solicitud.
- ☒ Otros: Forma PCT/IB/306 mediante la cual la Oficina Internacional de la OMPI notifica el registro de la corrección en la dirección de la solicitante.

11

FIGURA CARACTERÍSTICA



12

Solicito la concesión de la patente,

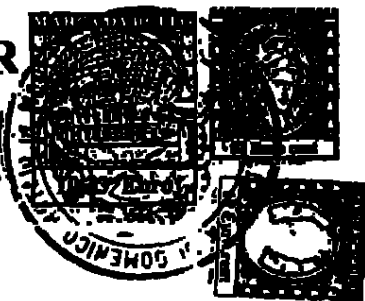
NOMBRE:

EMILIO FERRERO

FIRMA :

C.C. 438.019 de Usaquén T.P. 31.929

DLM



REPRESENTACION Y PODER

Yo (nosotros), abajo firmado(s)/Io (noi) sottoscritto (i)

GEOX S.p.A.

domiciliado (s) en/residente(i) a **Via Feltrina Centro, 16**

31044 MONTEBELLUNA, Località Biadene - (Treviso) - ITALIA

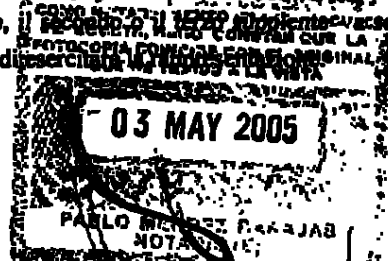
por el presente nombramos a EMILIO FERRERO, tpa. 31929; GONZALO PERDOMO, tpa. 831; LUZ CLEMENCIA DE PAEZ, tpa. 23555 y GERMAN CAVELIER, tpa. 832, domiciliados en la Carrera 4a N° 72-35, Bogotá, Colombia, en obediencia a lo dispuesto en el parágrafo 1o del Artículo 543 del Código de Comercio, el primero como principal y los demás como suplentes, en su orden, como mis (nuestros) representantes en todos los asuntos de propiedad industrial con facultad para recibir notificaciones y nombrar apoderados judiciales o extrajudiciales. El primer representante suplente reemplazará al principal en caso de ausencia o impedimento temporal o definitivo de aquél. La misma regla se aplicará cuando el segundo representante suplente haya de reemplazar al primero, o el tercero al segundo. En tales casos, el representante principal, o el primero, o segundo suplente, en su caso, o ambos, declararán su intención de no ejercer la representación mediante declaración autenticada por Notario Público en Colombia, o por Notario u otro Funcionario Público, o Cónsul de Colombia, en el extranjero; y si se tratare de impedimento, con el certificado respectivo. Si alguno de los nombrados faltare definitivamente, el siguiente tomará su lugar. Cuando cesare la ausencia o impedimento del representante principal, o de su primero o segundo suplentes, en su caso, podrán ejercer la representación, en su orden, uno u otros según el caso, asumiéndola por el solo hecho de ejercerla, cesando en ese momento el ejercicio de la representación por el primero, segundo o tercer suplente en su caso.

Representación y Poder con autenticación notarial y Apostille para patentes, modelos de utilidad, diseños industriales; marcas de fábrica, nombres comerciales, enseñas, nombres de dominio, lemas comerciales, licencias.

Rappresentazione e Procura con autenticazione notarile e Apostille per di patenti, modelli di utilità, disegni industriali; marchi di fabbrica, nomi commerciali, insegne, nomi del dominio, slogan commerciali, licenze.

RAPPRESENTAZIONE E PROCURA

per mezzo del presente documento nominiamo nostro procuratore a EMILIO FERRERO, tpa. 31929; GONZALO PERDOMO, tpa. 832; LUZ CLEMENCIA DE PAEZ, tpa. 23555 ed GERMAN CAVELIER, tpa. 831, domiciliati nella Carrera 4a N° 72-35, Bogotá, Colombia, ai sensi del paragrafo 1 dell'articolo 543 del Codice del Commercio, come nostri rappresentanti, principale il primo e supplenti gli altri, nell'ordine sopra indicato, in tutti gli affari relativi a proprietà industriale, con la facoltà di ricevere notificazioni e di nominare procuratori giudiziari o estragiudiziali. Il primo rappresentante supplente sostituirà il rappresentante principale in caso di assenza o di impedimento temporaneo o definitivo di costui. La stessa regola verrà applicata qualora il primo rappresentante supplente dovesse venire sostituito dal secondo, o il secondo dal terzo. In tali casi il rappresentante principale, o il primo o il secondo supplente in sua vece, o ambedue, dichiareranno la loro intenzione di non esercitare la rappresentazione mediante una dichiarazione autenticata da un Notaio Pubblico in Colombia, o da un Notaio o altro Funzionario Pubblico, o dal Console colombiano, all'estero; qualora si trattasse di impedimento, andrà presentato il certificato corrispondente. Se qualcuno dei nominati mancasse in forma definitiva, il suo posto verrà preso dal seguente. Quando sarà cessata l'assenza del rappresentante principale, o del primo, secondo o terzo supplente in sua vece, la rappresentazione potrà essere esercitata a seconda del caso e nell'ordine summenzionato dagli altri avvocati nominati, i quali la assumeranno, per il semplice fatto di esercitarla e in quel momento il primo, il secondo o il terzo supplente a seconda del caso - cesseranno di esercitarla.



Además, confiero (conferimos) poder a los abogados arriba nombrados, para obtener la protección de mi (nuestra) propiedad industrial y contra la competencia desleal, a cuyo efecto autorizo (amos) a los dichos apoderados para que me (nos) representen ante cualesquiera entidades o personas, ejerzan o no jurisdicción, especialmente ante las del orden administrativo, contencioso-administrativo y judicial, así como los tribunales de arbitramento, en todo lo concerniente a los siguientes asuntos: a) Obtención de patentes de invención, modelos de utilidad y diseños industriales; el registro de marcas de fábrica, colectivas, defensivas, de servicio, lemas comerciales, nombres comerciales, enseñas, nombres de dominio, variedades vegetales y denominaciones de origen; su renovación, traspaso, cambio de nombre o domicilio, cancelación voluntaria; y el registro de licencias de uso de esos derechos; b) Las acciones de competencia desleal, protección del consumidor, oposiciones u observaciones, cancelación administrativa y judicial, nulidad, medidas cautelares, concesión de licencias, la tutela, la protección de secretos industriales, y en general los juicios civiles, penales, administrativos o contencioso administrativos relacionados con estos derechos; acciones y procesos que promovamos o se nos promuevan. Y para que en todos los asuntos arriba determinados, puedan sustituir este mandato, transigir, conciliar, admitir los hechos del proceso, desistir, cancelar, recibir, renunciar, y ratificar los actos de agentes oficiosos.

Inoltre concediamo agli avvocati suddetti l'incarico per ottenere la protezione della mia (nostra) proprietà industriale e contro la concorrenza sleale; a questo fine autorizzo(iamo) le persone menzionate affinché mi (ci) rappresentino presso qualsiasi entità o persona, esercitino o no giurisdizione, specialmente presso quelle d'ordine amministrativo, contencioso-amministrativo, arbitrale e giudiziale, in tutto ciò che si riferisce ai seguenti incisi; a) conseguimento delle patenti di invenzione, modelli di utilità, disegni industriali; il deposito dei marchi di fabbrica, collettivi, difesa, di servizio, slogan commerciali, nomi commerciali, delle insegne, nomi del dominio, varietà vegetale e denominazioni di origine; il loro rinnovamento, trasferimento, cambio di nomi o di domicilio, l'annullamento volontario, e il permesso delle licenze per l'uso di questi diritti; b) gli atti di concorrenza sleale, protezione del consumatore, opposizione, annullamento amministrativo e giudiziale, nullità, caducità, misure cautelative, concessione di licenze, tutelare i diritti, la protezione dei segreti industriali, ed in generale le cause civili, penali, amministrative o contenzioso amministrative riferentesi a questi diritti; azioni o cause promosse da noi o che siano dirette contro di noi; e c) affinché, in tutti i punti sopra indicati, possano sostituire questo mandato, transigere, conciliare, ammettere i fatti del processo, desistere, e ratificare quanto attuato da rappresentanti non ufficiali.

Dado y firmado hoy/Rilasciato e firmato oggi

16 DIC 2004

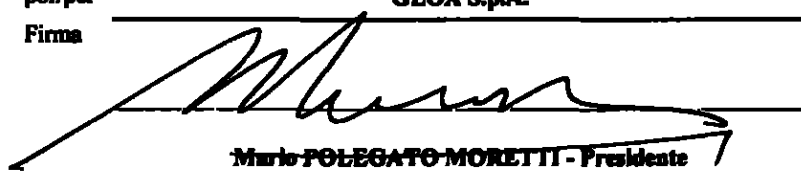
en/a

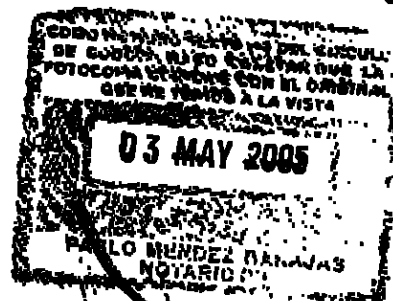
MONTEBELLUNA

por/per

GEOX S.p.A.

Firma


Mario POLEGATO MORETTI - Presidente



39877 5

CERTIFICACION NOTARIAL (SOCIEDAD)

El infrascrito Notario Certifica: Que la firma que antecede de

es auténtica; que el signatario desempeña actualmente el cargo de

de la compañía

sociedad que actualmente existe y está organizada de acuerdo a las leyes de

que la dirección de dicha compañía es

y que el signatario tiene facultad para otorgar este documento.

Todos los hechos anteriores le constan por haber examinado los documentos respectivos y de todo ello da fe.

Hecho y firmado en

Hoy del mes de de 200

CERTIFICATO NOTARILE (SOCIETA)

Il sottoscritto Notaio certifica: Che la firma che precede di

MARIO POLEGATO MORETTI

è autentica; che il firmatario attualmente svolge le funzioni di

PRESIDENTE

della compagnia GEOX S.p.A.

società che attualmente esiste ed è organizzata in conformità con le leggi di

ITALIA

che l'indirizzo di detta compagnia è

Via Feltrina Centro, 16

31044 MONTEBELLUNA, Località Biadene - (Treviso) - ITALIA

e che il firmatario ha la facoltà di rilasciare questo documento.

Tutti i fatti anteriori gli constano perché ha esaminato i documenti rispettivi e di tutto ciò dà fede.

Rilasciato e firmato a MONTEBELLUNA

Il del mese di DIC 2004 200

EL NOTARIO PÚBLICO - IL NOTAIO PUBBLICO

(FIRMA-SELLO) - (FIRMA-TIMBRO)

[Handwritten signature and circular notary stamp]

**REPUBBLICA ITALIANA
PROCURA DELLA REPUBBLICA C/O IL TRIBUNALE
TREVISO**

**UFFICIO LEGALIZZAZIONI
APOSTILLE**

Il presente atto pubblico è stato sottoscritto da:

ELIA NOVELLI

- agente in qualità di Notaio in
Montebelluna

- ed è stato segnato del timbro personale del suddetto Notaio

ATTESTATO

a Treviso - Procura della Repubblica - il 28 DIC. 2004
del Procuratore della Repubblica - sotto il nr. 1601/04
del Registro Apostille - (Convenzione AJA 5/10/68)

IL PROCURATORE DELLA REPUBBLICA

IL SOST. PROCURATORE DELLA REPUBBLICA

(Dott. Giuliano VALMASCO)

[Circular stamp: COME NOTARIO INTRODOTTO NEL CIRCOLO...]
03 MAY 2005

CAVELIER ABOGADOS
WIPODE01-186



6

TRADUCCIÓN OFICIAL No. 996 A-III, del idioma Italiano al idioma Español correspondiente a la apostilla que aparece en el documento de Representación y Poder otorgado por GEOX, S.p.A, domiciliado en Via Feltrina Centro, 16 – 31044 Montebelluna, Località Biadene - / Treviso)-Italia; a Emilio Ferrero, tpa. 31929, Gonzalo Perdomo, tpa. 831, Luz Clemencia de Páez, tpa. 23555 y Germán Cavelier, tpa. 832, domiciliados en la Cra. 4 No. 72-35, Bogotá, Colombia; realizada por SANDRA MÓNICA BARRIGA BALMA traductora Oficial para los Idiomas Español – Italiano - Español, RES. No. 735 del 20 de SEPTIEMBRE DE 2001 DEL MINISTERIO DEL INTERIOR Y DE JUSTICIA.

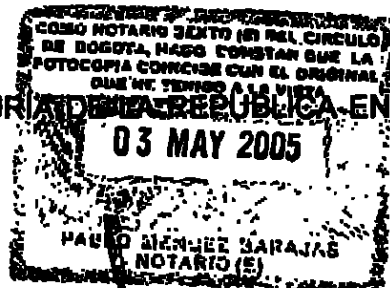
**REPÚBLICA ITALIANA
PROCURADURÍA DE LA REPÚBLICA C/O EL TRIBUNAL
TREVISO – DESPACHO DE LEGALIZACIONES
APOSTILLA**

EL PRESENTE ACTO PÚBLICO FUE SUSCRITO POR ELIA NOVELLI
ACTUANDO EN CALIDAD DE NOTARIO EN MONTEBELLUNA
FUE SELLADO CON EL SELLO PERSONAL DEL MENCIONADO NOTARIO.

CERTIFICADO

EN TREVISO – PROCURADURÍA DE LA REPÚBLICA EL 28 DE DICIEMBRE
DE 2004 POR EL PROCURADOR DE LA REPÚBLICA, BAJO EL NUMERO
1601/04 DEL REGISTRO DE APOSTILLAS – (CONVENCIÓN DE LA HAYA
5/10/61)

FIRMADO ILEGIBLE POR EL DR. GIOVANNI VALMASSOI – PROCURADOR
DE LA REPÚBLICA
SIGUE SELLO REDONDO DE LA PROCURADURÍA DE LA REPÚBLICA EN
EL TRIBUNAL DE TREVISO.

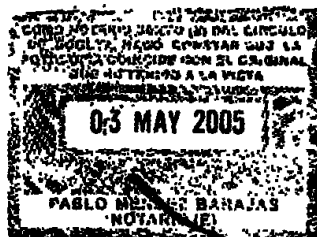


SANDRA MONICA BARRIGA B.
Traductora e Intérprete Oficial
Español - Italiano - Español
Res. Minjusticia 735
Del 20 de Septiembre de 2001
[Signature]

NO SE ASUME
RESPONSABILIDAD DEL TEXTO
1000 FEB - 1 P 1:50
Jefe de LEGALIZACIONES
BOGOTÁ D.C.

MINISTERIO DE
RELACIONES EXTERIORES

310531
Gandía Benítez
CUYA FIRMA AGREGA EN EL
DOCUMENTO DESEMPENA
LAS FUNCIONES INDICADAS



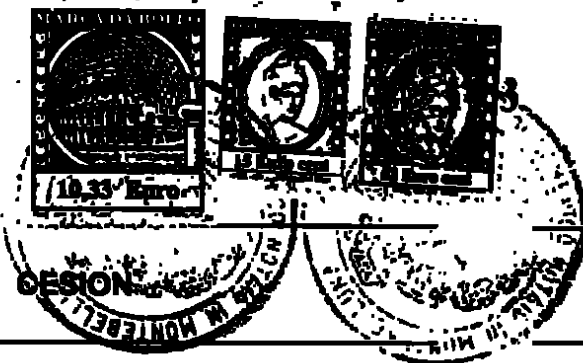
26

CAVELIER

ABOGADOS

EDIFICIO SISKI

CARRERA 4a N° 72-35
BOGOTÁ, 8 - COLOMBIA



CESSIONE

Yo. (nosotros) abajo firmado (s)

1. _____
2. _____

domiciliado(s) en

1. _____

2. _____

declaro(amos) bajo juramento ser único(s) y verdadero(s) inventor(es)

invención: Suela impermeabilizada y transpi-

rente perfeccionada para calzados y su procedimiento

de fabricación. declaro(amos) así mismo que cedo(amos) y transfiero(erimos), sin

limitación, a favor de la sociedad

GEOX S.p.A

constituida y existente de conformidad con las leyes de

Italia

domiciliada en Via Feltrina Centro, 16

31044 Montebelluna, Località Biadene (Trevi)

todos los derechos inherentes a dicha invención y que la citada Italia
Compañía queda facultada para solicitar en su nombre la patente de
invención correspondiente en la República de Colombia.

Lo (noi) sottoscritto(-i)

1. Mario POLEGATO MORETTI
2. Antonio FERRARESE

domiciliato (-i) a

1. Via Antonini, 7

31035 CROCETTA DEL MONTELLO - ITALIA

2. Via Rimembranza, 23

37063 ISOLA DELLA SCALA - ITALIA

Dichiaro (dichiariamo) sotto giuramento di essere l'unico (gli unici)

inventore (-i) dell'invenzione Suela Imperabilizzata e

traspirante per calzature e suo procedimento di
realizzazione

Dichiaro (dichiariamo) anche che cedo (cediamo) e trasferisco

(trasferiamo), senza nessuna limitazione, a favore della società

GEOX S.P.A.

Costituita ed esistente in conformità con le leggi dello Stato di

Italia

domiciliata a Via Feltrina Centro, 16

31044 MONTEBELLUNA, Località Biadene - (Treviso)
- ITALIA

Tutti i diritti riguardanti la suddetta invenzione e che la summenzionata
Compagnia ha la facoltà di richiedere a suo nome il brevetto
corrispondente nella Repubblica della Colombia.

Dado y firmado hoy/Rilasciato e firmato oggi

en/a

Firma

1. Mario POLEGATO MORETTI

2. Antonio FERRARESE



CAVELIER ABOGADOS

WPP00E01-373

8

CERTIFICACIÓN NOTARIAL (INDIVIDUO)

A los _____ días del mes de _____
de 200 ____ Ante mí, Notario Público de _____

compareció(eron) personalmente _____

a quien(es) doy fe de conocer y me consta que es(son) la(s)
persona(s) firmante(s) del documento que precede, y quien(es)
tiene(n) capacidad legal para otorgarlo

NOTARIO PÚBLICO- NOTAIO PUBBLICO

MONTEBELLUNA, Via Roma 6

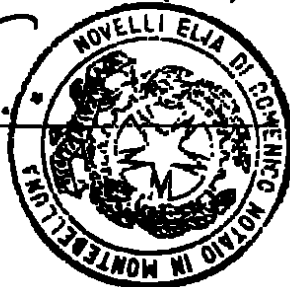
AUTENTICAZIONE NOTARILE

Il _____ giorno _____ del mese di _____
200 ____ dinanzi a me, Notaio Pubblico di **DOTT. ELIA NOVELLI**
MONTEBELLUNA

si è presentato (si sono presentati) personalmente

ROBERTO TUBETTI TURCO
FERRARESE AUGUSTO

che certifico di conoscere e che è (sono) la (le) persona (-e) che
sottoscrive (sottoscrivono) l'anteriore documento e che ha (hanno) la
capacità legale per rilasciarlo.



APOSTILLE

(Convention de La Haye du 5 octobre 1961)

1. Country:
This public document
2. has been signed by
3. acting in the capacity of
4. bears the seal/stamp of

Certified

5. at 6. the
7. by
8. No.
9. Seal/stamp 10. Signature

.....

CAVELIER ABOGADOS

WFFODE01- 373

REPUBBLICA ITALIANA
PROCURA DELLA REPUBBLICA C/O IL TRIBUNALE
TREVISO

UFFICIO LEGALIZZAZIONI
APOSTILLE

Il presente atto pubblico è stato sottoscritto da:

Novelli S. de
- agente in qualità di cauto

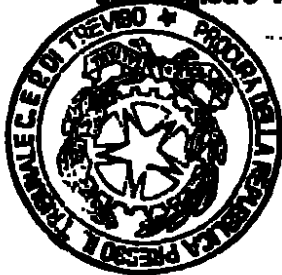
- ed è stato segnato dal timbro personale del suddetto
Novelli

ATTESTATO

24 MAR. 2005

a Treviso - Procura della Repubblica - Il
dal Procuratore della Repubblica - sotto il nr. 28570.5
dal Registro Apostille - (Convenzione AJA 8/10/81)

IL PROCURATORE DELLA REPUBBLICA
IL PROCURATORE DELLA REPUBBLICA



Antonio FOJADELLI
Antonio Fojadelli

9

TRADUCCIÓN OFICIAL No. 1033-J, correspondiente a la apostilla que aparece en el documento de cesión de los derechos de la invención "Suela impermeabilizada y transpirante perfeccionada para calzados y su procedimiento de fabricación", otorgado por Mario Polegato Moretti y Antonio Ferrarese a GEOX S.p.A.; realizada por SANDRA MÓNICA BARRIGA BALMA traductora Oficial para los idiomas Español – Italiano - Español, RES. No. 735 del 20 de SEPTIEMBRE DE 2001 DEL MINISTERIO DEL INTERIOR Y DE JUSTICIA.

REPÚBLICA ITALIANA

PROCURADURÍA DE LA REPÚBLICA C/O EL TRIBUNAL

TREVISO

OFICINA DE LEGALIZACIONES

APOSTILLA

EL PRESENTE ACTO PÚBLICO ,FUE SUSCRITO POR NOVELLI ELIA

ACTUANDO EN CALIDAD DE NOTARIO

FUE MARCADO CON EL SELLO PERSONAL DEL MENCIONADO NOTARIO

CERTIFICADO

EN TREVISO EL 24 DE MARZO DE 2005

POR LA PROCURADURÍA DE LA REPÚBLICA, BAJO EL NÚMERO 285/05

**POR EL PROCURADOR DE LA REPÚBLICA - (CONVENCIÓN DE LA HAYA
05/10/61)**

**FIRMADO ILEGIBLE POR EL PROCURADOR DE LA REPÚBLICA – ANTONIO
FOJADELLI.**

**EL DOCUMENTO PRESENTA UN SELLO REDONDO DE LA PROCURADURÍA
DE LA REPÚBLICA EN EL TRIBUNAL DE TREVISO.**

SANDRA MONICA BARRIGA B.
Traductora e Intérprete Oficial
Español - Italiano - Español
Res. Minjusticia 735
Del 20 de Septiembre de 2001
Sandra Barriga Balma

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PATENT COOPERATION TREATY



PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

To:

MODIANO, Guido
Modiano & Associati
Via Meravigli, 16
I-20123 Milano
Italy

Date of mailing (day/month/year) 02 February 2005 (02.02.2005)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 38231/GM/lp	
International application No. PCT/EP2003/011307	International filing date (day/month/year) 13 October 2003 (13.10.2003)

1. The following indications appeared on record concerning:

☒ the applicant ☐ the inventor ☐ the agent ☐ the common representative

Name and Address

GEOX S.P.A.
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State of Nationality

IT

State of Residence

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Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person ☐ the name ☒ the address ☐ the nationality ☐ the residence

Name and Address

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State of Residence

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Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

☒ the receiving Office	☐ the designated Offices concerned
☐ the International Searching Authority	☒ the elected Offices concerned
☒ the International Preliminary Examining Authority	☐ other:

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

David MALEK

Facsimile No. (41-22) 338.89.76

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(19) World Intellectual Property
Organization
International Bureau



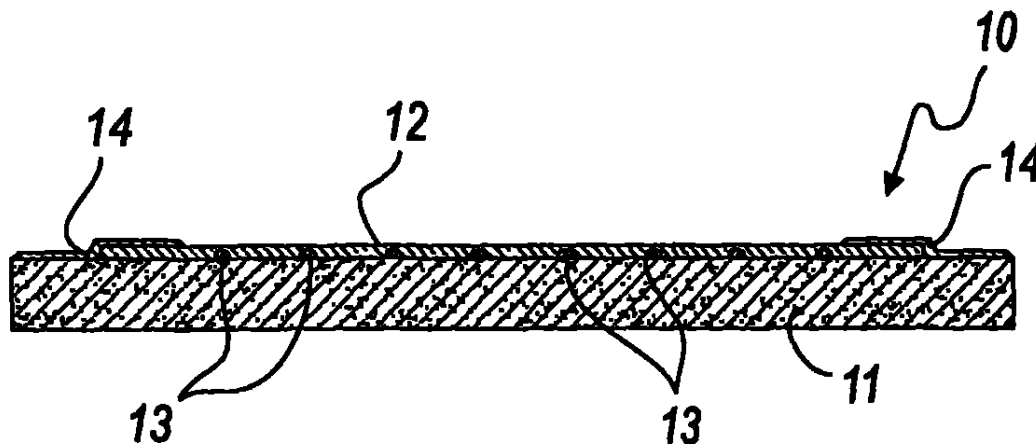
(43) International Publication Date
29 April 2004 (29.04.2004)

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(10) International Publication Number
WO 2004/034830 A1

- (51) International Patent Classification: A43B 7/12 (74) Agent: MODIANO, Guido; Modiano & Associati, Via Meravigli, 16, I-20123 Milano (IT).
- (21) International Application Number: PCT/EP2003/011307 (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NL, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
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- (71) Applicant (for all designated States except US): GEOX S.P.A. (IT/IT); Via Feltrina Centro, 16, I-31044 Montebelluna (IT).
- (72) Inventors; and
- (73) Inventor/Applicants (for US only): POLEGATO MORETTI, Mario (IT/IT); Via Antonini, 7, I-31035 Crocetta del Montello (IT). FERRARESE, Antonio (IT/IT); Via Rimembranza, 23, I-37063 Isola Della Scala (IT).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: WATERPROOFED AND BREATHABLE SOLE FOR SHOES AND MANUFACTURING METHOD THEREOF



(57) Abstract: A waterproofed and breathable sole (10) for shoes, characterized in that it comprises a tread (11) made of leather or similar breathable and water-permeable material, which is covered at least partially in an upward region by a membrane (12) made of a material that is breathable and waterproof and is joined perimetrically to the tread (11) by means of a screen-printed sealing ring (14).

WO 2004/034830 A1

WATERPROOFED AND BREATHABLE SOLE FOR SHOES AND MANUFACTURING METHOD THEREOF

Technical Field

The present invention relates to an improved waterproofed and breathable
5 sole for shoes and to the method for manufacturing it.

Background Art

It is known that the main problem observed in using shoes with an
ordinary sole made of natural material such as leather or equivalents is
constituted by wet walking areas.

10 When rain and bad weather make streets wet and slippery, it is in fact not
advisable to use shoes with leather soles, since leather, just because it is
breathable and healthy for the foot, is not waterproof but in fact absorbs
water.

The thinner the leather, the higher the rate at which it becomes
15 impregnated with water or moisture, ultimately wetting the user's foot.

Accordingly, the use of soles with a leather tread is constrained by
weather conditions, and for this reason shoes made of this type of material
are mainly provided by manufacturers in the summer collections in countries
where the dry season is more substantial.

20 A sole (disclosed in US 5,598,644 and EP 0 619 959) has been devised
which comprises a tread made of leather or similar material that is at least
partially covered in an upward region by a membrane made of a material
that is vapor-permeable and waterproof.

The waterproof and breathable membrane is fixed to the sole by means of
25 adhesive arranged in spots, and a perimetric sealing ring made of polymeric
material, for example polyurethane, is injected in a mold to assemble all the
parts.

Although this sole is a considerable technical step forward, in that it
renders the leather tread waterproof, it has in any case shown some
30 limitations.

A first limitation arises from the very nature of leather, which as mentioned is a breathable material, but its breathability is not so high as to dissipate in a short time all the heat and vapor that form inside the shoe during use.

5 A second limitation is due to the fact that as mentioned the seal is produced by injection-molding a ring of plastic material.

This process requires the provision of thick seals and accordingly increases the rigidity of the sole, so that some types of shoe in which high flexibility is required, such as women's shoes, are difficult to manufacture.

10 The high cost of this technology (provision of an aluminum mold for each shoe model and size to be produced) is not inconsequential.

An attempt has been made to obviate the problem of thicknesses by using, for the perimetric seal, films made of thermoplastic polyurethane material with a thickness of 200 microns.

15 Although this method allows to obtain qualitatively acceptable products, it is extremely expensive, since it is almost entirely manual.

Disclosure of the Invention

The aim of the present invention is to provide a sole, and the method for manufacturing it, that solve the drawbacks noted above in known types of
20 waterproofed breathable shoes with a tread made of leather or equivalent material.

A consequent primary object is to provide a sole that can be thin and flexible.

Another object is to increase breathability.

25 Another important object is to provide a sole that is characterized by the possibility of high flexibility in production.

Another object is to increase user comfort.

Another object is to provide a sole that can be manufactured at low cost and therefore can be sold at a competitive price.

30 Another object is to provide a sole that can be manufactured with known

equipment and methods.

This aim and these and other objects that will become better apparent hereinafter are achieved by a waterproofed breathable sole for shoes, characterized in that it comprises a tread made of leather or similar
5 breathable and water-permeable material, which is covered at least partially in an upward region by a membrane made of a material that is breathable and waterproof and is joined perimetrically to the tread by means of a screen-printed sealing ring.

Brief description of the drawings

10 Further characteristics and advantages of the invention will become better apparent from the detailed description of some embodiments thereof, illustrated by way of non-limitative example in the accompanying drawings, wherein:

Figure 1 is a schematic sectional view of the sole according to the
15 invention;

Figure 2 is a schematic sectional view illustrating a step of the process for manufacturing the sole of Figure 1;

Figure 3 is a schematic sectional view illustrating a step of the manufacturing process that follows the step of Figure 2.

20 Ways to carrying out the Invention

With reference to Figure 1 cited above, an improved waterproofed and breathable sole for shoes is generally designated by the reference numeral 10 and comprises a tread 11 made of leather or similar breathable and water-permeable material (such as leather, open-cell synthetic material, et cetera),
25 covered in an upward region by a membrane 12 that is impermeable to water and vapor-permeable (breathable) and is preferably made of expanded polytetrafluoroethylene (PTFE).

The membrane 12, which in this case has no support of any kind, is provided in thicknesses that can vary between 5 and 40 microns.

30 The membrane 12 is conveniently spaced perimetrically from the edge of

the tread 11.

The membrane 12 is preferably fixed to the tread 11 by means of adhesive 13 in spots and a perimetric sealing ring 14 is provided by screen printing.

5 The process for manufacturing the ring 14 provides for a first step for preparing a frame 15, which is constituted by a fabric with a sufficiently wide mesh (12 to 43 threads per centimeter), such as to allow the passage of a solution or dispersion of polymer, in a preferred embodiment polyurethane, which has a dry residue of approximately or substantially at least 60%.

10 This solution or dispersion is per se known and commercially available.

This material, in order to allow greater resistance to temperatures of at least 50-60 °C and ensure its chemical and structural integrity (in particular its resistance to hydrolysis and aging stability), receives the addition of suitable cross-linking agents, i.e., agents that facilitate the cross-linking
15 reaction and are therefore capable of reacting with the functional groups that are still free inside the polyurethane.

These agents can be, for example, isocyanates (3-5%) suitably catalyzed to increase their reactivity, for example by means of amines.

During this preparatory step, it is also possible to cover some regions of
20 the frame by way of a photoengraving process, in the regions that must not be covered by the solution, for example the ones subsequently affected or covered by the membrane 12, naturally with the exception of the regions that correspond to its perimetric regions or edges.

The membrane 12, already treated with spots 13 of glue, is then bonded
25 to the tread 11 by hot pressing by means of a hot press (not shown in the figures).

The next steps (Figure 2) are to arrange the tread 11 under the frame 15 and pour (Figure 3) said solution or dispersion of polymer onto said frame 15.

30 Penetration of the material through the mesh of the frame 15 is facilitated

by using a doctor.

The material, which is in the fluid state, due to the evaporation of the solvent phase, leaves the solid phase contained therein deposited on the tread 11 and on the membrane 12, forming the sealing ring 14.

5 The assembly constituted by the tread 11, the membrane 12 and the sealing ring 14, which corresponds to Figure 1, is removed and dried.

After forming the ring 14, it is possible to perform a further heating step, substantially at 60-80 °C, in order to accelerate cross-linking.

This heating step can be alternative to, or combined with, said step for
10 addition of isocyanate (an agent that facilitates cross-linking).

With this technology it is possible to obtain films of a chosen constant and reproducible thickness (on the order of 100-500 microns).

The amount of fluid deposited is changed by varying the number of threads per centimeter of the frame 15.

15 It is possible to provide in alternative embodiments of the invention the prior application to the tread 11 of adhesion promoters, again constituted by dispersions or solutions of polyurethane polymers, which however have a low viscosity (less than 600 centipoises, according to the Brookfield method), i.e., are capable of penetrating through the fibers of the leather
20 itself.

In still other alternative embodiments, it is possible to use polyurethanes in a solution or dispersion having a low relative molecular mass.

In this case it is also convenient to provide an addition of a cross-linking agent such as catalyzed isocyanate, in order to block the reversibility of the
25 process due to the temperature.

Another embodiment can comprise the application of multiple layers of polymer dispersion in order to ensure the continuity of the film that forms the ring 14.

In practice it has been found that the intended aim and objects of the
30 present invention have been achieved.

The sole has the qualitative characteristics of leather soles, particularly breathability, together with the qualitative characteristics of soles made of rubber or synthetic material, particularly waterproofness, and all this is achieved with reduced thicknesses by virtue of the provision of the
5 perimetric seal by screen printing.

Although the principle of screen printing is per se known, it is generally exclusively used to provide decorative details on items of clothing and shoes.

Practical tests have demonstrated that the method, suitably adapted as
10 described above, can be used conveniently as a means for providing a perimetric seal of very low thickness between the membrane 12 and the tread 11.

The sole 10 can therefore be provided in a thin and flexible form and can be used for any shoe design, and also for women's shoes.

15 It should be noted that said sole can be manufactured without particular difficulties with a manufacturing process that is functionally more flexible than the current one.

The invention thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims.

20 All the details may further be replaced with other technically equivalent elements.

In practice, the materials used, so long as they are compatible with the contingent use, as well as the dimensions, may be any according to requirements.

25 The disclosures in Italian Patent Application No. PD2002A000264 from which this application claims priority are incorporated herein by reference.

CLAIMS

1. A waterproofed breathable sole (10) for shoes, characterized in that it comprises a tread (11) made of leather or similar breathable and water-permeable material, which is covered at least partially in an upward region
s by a membrane (12) made of a material that is breathable and waterproof and is joined perimetrically to the tread (11) by way of a screen-printed sealing ring (14).

2. The sole according to claim 1, characterized in that said waterproof and vapor-permeable membrane (12) is made of expanded
10 polytetrafluoroethylene.

3. The sole according to claim 1, characterized in that said waterproof and vapor-permeable membrane (12) supportless, and is provided with thicknesses between 5 and 40 microns.

4. The sole according to claim 1, characterized in that said membrane
15 (12) is spaced perimetrically from the edge of said tread (11).

5. The sole according to claim 1, characterized in that said membrane (12) is fixed to said tread (11) by way of adhesive (13) applied in spots.

6. A method for manufacturing a sole according to one or more of the preceding claims, consisting in:

20 — preparing a frame (15) that comprises, at least at perimetric regions of the membrane (12) in selected position on the tread (11), a fabric with a mesh that is sufficiently wide to allow the passage of a solution or dispersion of polymer that has a dry residue of at least 60% by weight with the addition of setting agents;

25 — arranging said membrane (12) on said tread (11);

— placing said tread (11) and said membrane (12) under said frame (15), pouring said solution or dispersion of polymer onto said frame (15), and making it penetrate through the mesh of said frame (15), forming at least one layer of a sealing ring (14);

30 — removing the assembly constituted by the tread (11), the membrane

(12) and the ring (14); and

-- drying the assembly.

7. The method according to claim 6, characterized in that said solution or dispersion of polymer that has a dry residue of approximately 60% by weight is a polyurethane solution or dispersion.

8. The method according to claims 6 and 7, characterized in that it comprises addition to said solution or dispersion of polyurethane polymer that has a dry residue of approximately 60% by weight of cross-linking agents.

9. The method according to claim 8, characterized in that said cross-linking agents are catalyzed isocyanates.

10. The method according to one or more of claims 6 to 9, characterized in that it comprises a heating step, after the forming of said ring (14), in order to accelerate the cross-linking of said solution or dispersion of polymer.

11. The method according to claim 10, characterized in that said heating is performed substantially at 60-80 °C.

12. The method according to claim 6, comprising a preliminary application, to said tread (11), of adhesion promoters constituted by dispersions or solutions of polyurethane polymers having a low viscosity, such as to be capable of penetrating through the fibers of said leather.

13. The method according to claim 6, consisting of the preliminary application, to said tread (11), of polyurethanes having a low relative molecular mass in a solution or dispersion.

14. The method according to claim 13, characterized in that it comprises addition to said polyurethanes having a low relative molecular mass in solution or dispersion of cross-linking agents.

15. The method according to claim 14, characterized in that said cross-linking agents are catalyzed isocyanates.

16. The method according to claim 6, comprising, prior to the arrangement of said membrane (12) on said frame (15), covering by a

photoengraving technique the regions of said frame (15) that are to be left uncovered by said solution or dispersion of polymer.

17. The method according to claim 16, characterized in that said regions covered by photoengraving are the regions subsequently covered by said
5 membrane (12), except for the regions that correspond to its edges.

18. The method according to claim 6, characterized in that the step of arrangement of said membrane (12) on said tread (11) also comprises the gluing of said membrane (12), treated beforehand with spots (13) of glue, to said tread (11).

10 19. The method according to claim 18, characterized in that said gluing is performed by way of hot pressing.

20. The method according to claim 6, characterized in that it comprises facilitation of the penetration of said solution or dispersion of polymer through the mesh of said frame (15) through action of a doctor.

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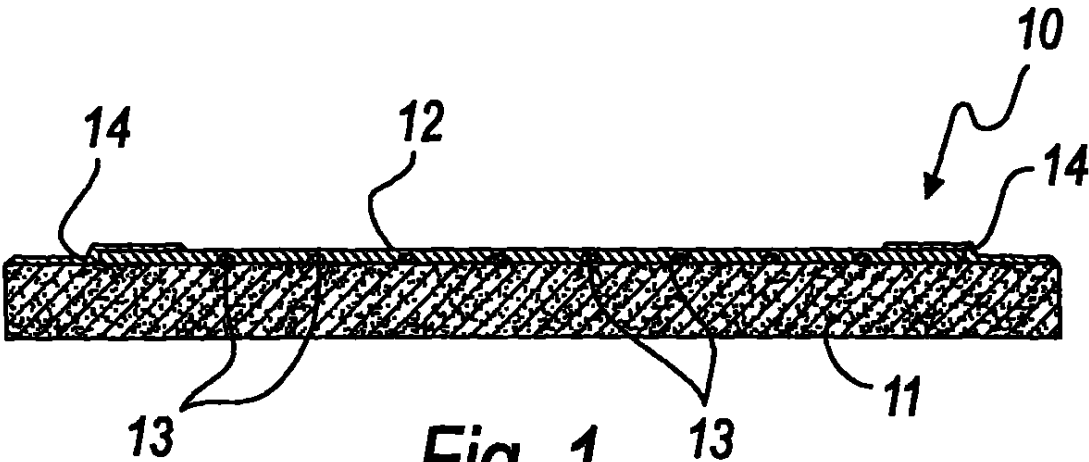


Fig. 1

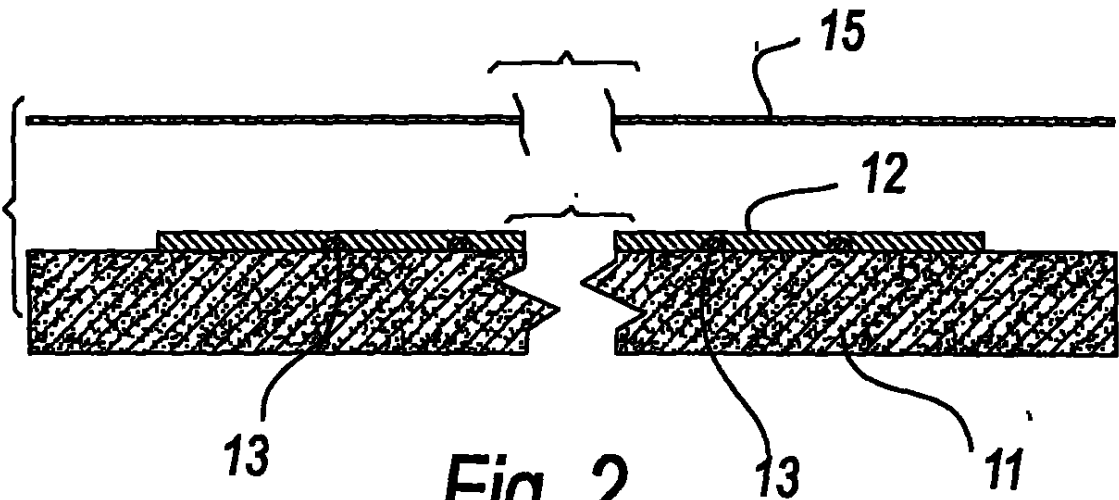


Fig. 2

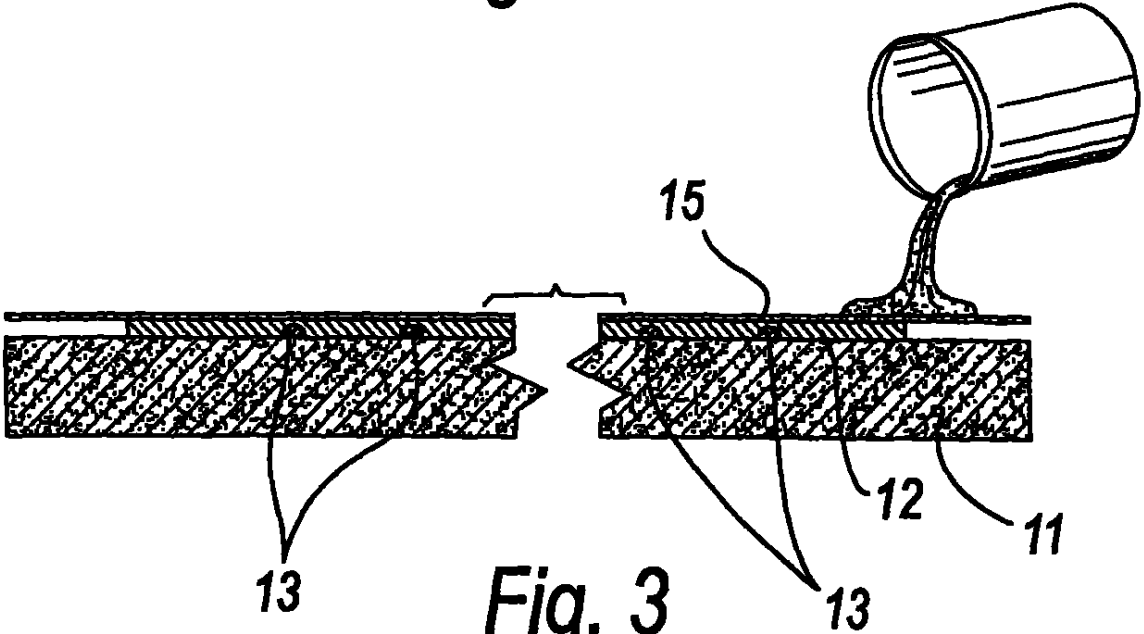


Fig. 3

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/11307

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A43B7/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A43B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/010127 A1 (POLEGATO MORETTI MARIO) 2 August 2001 (2001-08-02) claims 1,4; figure 3	1,4,5
Y	WO 02/052970 A (POLEGATO MORETTI MARIO ; NOTTINGTON HOLDING BV (NL)) 11 July 2002 (2002-07-11)	1-5
A	page 4, line 24 - line 30; claims 1-5; figures	6
Y	US 5 598 644 A (MORETTI POLEGATO MARIO) 4 February 1997 (1997-02-04) cited in the application claim 1; figure 3	1-5
A	US 2001/023023 A1 (MORLACCHI ANTONIO) 20 September 2001 (2001-09-20) claims	1,6
-/-		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (see specification)
- *O* document relating to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

13 January 2004

Date of mailing of the international search report

20/01/2004

Name and mailing address of the ISA

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Authorized officer

Claudel, B

INTERNATIONAL SEARCH REPORT

23

International Application No
PCT/EP 03/11307

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1 031 656 A (KURARAY CO) 30 August 2000 (2000-08-30) the whole document	7-20

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/11307

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		US 6451404 B1	17-09-2002

PATENT COOPERATION TREATY

25

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

(PCT Rule 44.1)

To:

MODIANO & ASSOCIATI
Attn. Modiano, Guido
Via Meravigli, 16
I-20123 Milano
ITALY

Date of mailing
(day/month/year)

20/01/2004

Applicant's or agent's file reference

38231/GM/Ip

FOR FURTHER ACTION

See paragraphs 1 and 4 below

International application No.

PCT/EP 03/11307

International filing date
(day/month/year)

13/10/2003

Applicant

GEOX S.P.A.

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Further action(s): The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority



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Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Louis Kainde

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 38231/GM/Ip	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 03/11307	International filing date (day/month/year) 13/10/2003	(Earliest) Priority Date (day/month/year) 15/10/2002
Applicant GEOX S.P.A.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 36.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1
☐ None of the figures.

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A43B7/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHEDMinimum documentation searched (classification system followed by classification symbols)
IPC 7 A43B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/010127 A1 (POLEGATO MORETTI MARIO) 2 August 2001 (2001-08-02) claims 1,4; figure 3	1,4,5
Y	WO 02/052970 A (POLEGATO MORETTI MARIO ; NOTTINGTON HOLDING BV (NL)) 11 July 2002 (2002-07-11)	1-5
A	page 4, line 24 - line 30; claims 1-5; figures	6
Y	US 5 598 644 A (MORETTI POLEGATO MARIO) 4 February 1997 (1997-02-04) cited in the application claim 1; figure 3	1-5
A	US 2001/023023 A1 (MORLACCHI ANTONIO) 20 September 2001 (2001-09-20) claims	1,6
-/-		

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *Z* document member of the same patent family

Date of the actual completion of the international search

13 January 2004

Date of mailing of the international search report

20/01/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Claude1, B

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1 031 656 A (KURARAY CO) 30 August 2000 (2000-08-30) the whole document _____	7-20

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/11307

29

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2001010127 A1	02-08-2001	IT PD20000027 A1 AU 3018601 A BR 0104298 A CA 2368917 A1 CN 1362863 T WO 0156419 A1 EP 1164883 A1 HR 20010709 A1 HU 0200878 A2 JP 2003521321 T NO 20014778 A NZ 514439 A ZA 200107871 A	31-07-2001 14-08-2001 08-01-2002 09-08-2001 07-08-2002 09-08-2001 02-01-2002 31-12-2002 29-07-2002 15-07-2003 01-10-2001 20-12-2002 02-01-2003
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US 5598644 A	04-02-1997	IT 1263332 B AT 166544 T CA 2116491 A1 DE 69410523 D1 DE 69410523 T2 DK 619959 T3 EP 0619959 A1 ES 2116483 T3 HK 1011500 A1 JP 7303502 A	05-08-1996 15-06-1998 06-09-1994 02-07-1998 15-10-1998 12-10-1998 19-10-1994 16-07-1998 09-07-1999 21-11-1995
US 2001023023 A1	20-09-2001	IT 1302704 B1 AU 1074800 A CN 1324221 T EP 1139805 A1 WO 0022948 A1 JP 2002527582 T	29-09-2000 08-05-2000 28-11-2001 10-10-2001 27-04-2000 27-08-2002
EP 1031656 A	30-08-2000	JP 2000314087 A CN 1264770 A EP 1031656 A1 TW 472097 B US 6451404 B1	14-11-2000 30-08-2000 30-08-2000 11-01-2002 17-09-2002

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ASSISTENTE**AMMIDATA**

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Bachmann & Co. (Germany)

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Avv. M. Balottrero[®]Dr. C. Bazzani[®]

Avv. J. Padellani

April 30, 2004

EUROPEAN PATENT OFFICE

P.B. 5818 — Patentlaan 2

2280 HV RIJSWIJK (ZH)

NETHERLANDS

Attention:INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY

Our ref.: 38231/SM/lp

Dear Sirs,

Re.: International Application

No. PCT/EP03/11307 of October 13, 2003

In the name of GEOX S.p.A.

Please find herewith enclosed a DEMAND under Art. 31 PCT together with a Voucher in the amount of Euro 1.659,00 corresponding to the Preliminary Examination and Handling Fees to be paid for the above-identified International Application.

Applicant hereby requests a "streamlined" Preliminary Examination.

Furthermore, refund of two-third of the Preliminary Examination and Handling Fees, is hereby requested.

Kindly acknowledge safe receipt of the enclosed papers.

Sincerely yours,

MODIANO Guido

Encl.: a.a.

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Bismarckstr. 3
Tel +49-89-22.12.16ALICANTE
Avenida De Marisimera 30
Tel +34-965.98.66-40BERGAMO
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Tel 035-21.84.32BOLOGNA
Via del Mille 5
Tel 051-24.56.04BRESCIA
Via Argentina 54
Tel 030-22.38.03MANTOVA
Via Mazzini 27
Tel 0376-32.35.55PADOVA
P.le Sordani 8
Tel 049-66.13.66TREVISO
Via Sordani 3
Tel 0422-41.05.00VERONA
Corso Po Nuova 109
Tel 045-39.17.37

Sheet No. 2

International application No.
PCT/EP03/11307**Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE**The following person is ☒ agent ☐ common representativeand ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.Name and address: (Family name followed by given name; for a legal entity, full official designation.
The address must include postal code and name of country.)

MODIANO Guido - JOSIF Albert - PISANTY Maurizio -
STAUB Gabriella - MODIANO ALAGEM S. Lara -
ZANOTTI Nemo - MODIANO Micaela
c/o MODIANO & ASSOCIATI - Via Meravigli, 16 -
20123 MILANO - ITALY - ALL PROFESSIONAL
REPRESENTATIVES BEFORE THE E.P.O.

Telephone No.

(003902) 85.90.77.77

Facsimile No.

(003902) 86.38.60

Teleprinter No.

Agent's registration No. with the Office

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.**Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION****Statement concerning amendments:***

1. The applicant wishes the international preliminary examination to start on the basis of:

☒ the international application as originally filedthe description ☐ as originally filed☐ as amended under Article 34the claims ☐ as originally filed☐ as amended under Article 19 (together with any accompanying statement)☐ as amended under Article 34the drawings ☐ as originally filed☐ as amended under Article 342. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.3. ☐ The applicant wishes the start of the international preliminary examination to be postponed until the expiration of 20 months from the priority date unless the International Preliminary Examining Authority receives a copy of any amendments made under Article 19 or a notice from the applicant that he does not wish to make such amendments (Rule 69.1(d)). (This check-box may be marked only where the time limit under Article 19 has not yet expired.)

* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Languages for the purposes of international preliminary examination: **ENGLISH**☒ which is the language in which the international application was filed.☐ which is the language of a translation furnished for the purposes of international search.☐ which is the language of publication of the international application.☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination.**Box No. V ELECTION OF STATES**

The applicant hereby elects all eligible States (that is, all States which have been designated and which are bound by Chapter II of the PCT)

excluding the following States which the applicant wishes not to elect:

Sheet No. .3.

International application No.
PCT/EP03/11307

Box No. VI CHECK LIST

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

- | | | |
|--|---|--------|
| 1. translation of international application | : | sheets |
| 2. amendments under Article 34 | : | sheets |
| 3. copy (or, where required, translation) of amendments under Article 19 | : | sheets |
| 4. copy (or, where required, translation) of statement under Article 19 | : | sheets |
| 5. letter | : | sheets |
| 6. other (specify) | : | sheets |

For International Preliminary Examining Authority use only

received	not received
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐

The demand is also accompanied by the item(s) marked below:

- | | |
|--|---|
| 1. ☒ fee calculation sheet | 5. ☐ statement explaining lack of signature |
| 2. ☐ original separate power of attorney | 6. ☐ sequence listings in computer readable form |
| 3. ☐ original general power of attorney | 7. ☐ tables in computer readable form related to sequence listings |
| 4. ☐ copy of general power of attorney; reference number, if any: | 8. ☒ other (specify): Voucher |

Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).

Milano, Italy
April 30, 2004

MODIANO Guido

For International Preliminary Examining Authority use only

1. Date of actual receipt of DEMAND:	
2. Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):	
3. ☐ The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply.	☐ The applicant has been informed accordingly.
4. ☐ The date of receipt of the demand is WITHIN the period of 19 months from the priority date as extended by virtue of Rule 80.5.	
5. ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.	

For International Bureau use only

Demand received from IPEA on:

PCT

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

PCT/EP 03 / 11307	
International Application No.	
(13.10.03)	13 OCT 2003
International Filing Date	
EUROPEAN PATENT OFFICE	
PCT INTERNATIONAL APPLICATION	
Name of receiving Office and "PCT International Application"	
Applicant's or agent's file reference (if desired) (12 characters maximum) 38231/GM/lp	

Box No. I TITLE OF INVENTION WATERPROOFED AND BREATHABLE SOLE FOR SHOES AND MANUFACTURING METHOD THEREOF	
Box No. II APPLICANT ☐ This person is also inventor	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) GEOX S.p.A. Via Feltrina Centro, 16 31044 MONTEBELLUNA, Località Biadene - (Treviso) IT	
Telephone No.	
Facsimile No.	
Teleprinter No.	
Applicant's registration No. with the Office	
State (that is, country) of nationality: IT	State (that is, country) of residence: IT
This person is applicant for the purposes of: ☐ all designated States ☒ all designated States except the United States of America ☐ the United States of America only ☐ the States indicated in the Supplemental Box	
Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) POLEGATO MORETTI Mario Via Antonini, 7 31035 CROCETTA DEL MONTELLO IT	
This person is: ☐ applicant only ☒ applicant and inventor ☐ inventor only (If this check-box is marked, do not fill in below.)	
Applicant's registration No. with the Office	
State (that is, country) of nationality: IT	State (that is, country) of residence: IT
This person is applicant for the purposes of: ☐ all designated States ☐ all designated States except the United States of America ☒ the United States of America only ☐ the States indicated in the Supplemental Box	
☒ Further applicants and/or (further) inventors are indicated on a continuation sheet.	
Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE	
The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as: ☒ agent ☐ common representative	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) MODIANO Guido MODIANO & ASSOCIATI Via Meravigli, 16 20123 MILANO ITALY	
Telephone No. (003902) 85.90.77.77	
Facsimile No. (003902) 86.38.60	
Teleprinter No.	
Agent's registration No. with the Office	
☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.	

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S) <i>If none of the following sub-boxes is used, this sheet should not be included in the request.</i>	
Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i> FERRARESE Antonio Via Rimembranza, 23 37063 ISOLA DELLA SCALA IT	This person is: ☐ applicant only ☒ applicant and inventor ☐ inventor only <i>(If this check-box is marked, do not fill in below.)</i> Applicant's registration No. with the Office
State (that is, country) of nationality: IT	State (that is, country) of residence: IT
This person is applicant for the purposes of: ☐ all designated States ☐ all designated States except the United States of America ☒ the United States of America only ☐ the States indicated in the Supplemental Box	
Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i> 	This person is: ☐ applicant only ☐ applicant and inventor ☐ inventor only <i>(If this check-box is marked, do not fill in below.)</i> Applicant's registration No. with the Office
State (that is, country) of nationality:	State (that is, country) of residence:
This person is applicant for the purposes of: ☐ all designated States ☐ all designated States except the United States of America ☐ the United States of America only ☐ the States indicated in the Supplemental Box	
Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i> 	This person is: ☐ applicant only ☐ applicant and inventor ☐ inventor only <i>(If this check-box is marked, do not fill in below.)</i> Applicant's registration No. with the Office
State (that is, country) of nationality:	State (that is, country) of residence:
This person is applicant for the purposes of: ☐ all designated States ☐ all designated States except the United States of America ☐ the United States of America only ☐ the States indicated in the Supplemental Box	
Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i> 	This person is: ☐ applicant only ☐ applicant and inventor ☐ inventor only <i>(If this check-box is marked, do not fill in below.)</i> Applicant's registration No. with the Office
State (that is, country) of nationality:	State (that is, country) of residence:
This person is applicant for the purposes of: ☐ all designated States ☐ all designated States except the United States of America ☐ the United States of America only ☐ the States indicated in the Supplemental Box	
☐ Further applicants and/or (further) inventors are indicated on another continuation sheet.	

Box No. V DESIGNATION OF STATES *Mark the applicable check-boxes below; at least one must be marked.*

The following designations are hereby made under Rule 4.9(a):

Regional Patent

☒ **AP** ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, MZ Mozambique, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZM Zambia, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT (if other kind of protection or treatment desired, specify on dotted line)

☒ **EA** Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT

☒ **EP** European Patent: AT Austria, BE Belgium, BG Bulgaria, CH & LI Switzerland and Liechtenstein, CY Cyprus, CZ Czech Republic, DE Germany, DK Denmark, EE Estonia, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, HU Hungary, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, RO Romania, SE Sweden, SI Slovenia, SK Slovakia, TR Turkey, and any other State which is a Contracting State of the European Patent Convention and of the PCT

☒ **OA** OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GQ Equatorial Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)

National Patent (if other kind of protection or treatment desired, specify on dotted line):

☒ AE United Arab Emirates	☒ HR Croatia	☒ OM Oman
☒ AG Antigua and Barbuda	☒ HU Hungary	☒ PG Papua New Guinea
☒ AL Albania	☒ ID Indonesia	☒ PH Philippines
☒ AM Armenia	☒ IL Israel	☒ PL Poland
☒ AT Austria	☒ IN India	☒ PT Portugal
☒ AU Australia	☒ IS Iceland	☒ RO Romania
☒ AZ Azerbaijan	☒ JP Japan	☒ RU Russian Federation
☒ BA Bosnia and Herzegovina	☒ KE Kenya	
☒ BB Barbados	☒ KG Kyrgyzstan	☒ SC Seychelles
☒ BG Bulgaria	☒ KP Democratic People's Republic of Korea	☒ SD Sudan
☒ BR Brazil	☒ KR Republic of Korea	☒ SE Sweden
☒ BY Belarus	☒ KZ Kazakhstan	☒ SG Singapore
☒ BZ Belize	☒ LC Saint Lucia	☒ SK Slovakia
☒ CA Canada	☒ LK Sri Lanka	☒ SL Sierra Leone
☒ CH & LI Switzerland and Liechtenstein	☒ LR Liberia	☒ SY Syrian Arab Republic
☒ CN China	☒ LS Lesotho	☒ TJ Tajikistan
☒ CO Colombia	☒ LT Lithuania	☒ TM Turkmenistan
☒ CR Costa Rica	☒ LU Luxembourg	☒ TN Tunisia
☒ CU Cuba	☒ LV Latvia	☒ TR Turkey
☒ CZ Czech Republic	☒ MA Morocco	☒ TT Trinidad and Tobago
☒ DE Germany	☒ MD Republic of Moldova	
☒ DK Denmark	☒ MG Madagascar	☒ TZ United Republic of Tanzania
☒ DM Dominica	☒ MK The former Yugoslav Republic of Macedonia	☒ UA Ukraine
☒ DZ Algeria	☒ MN Mongolia	☒ UG Uganda
☒ EC Ecuador	☒ MW Malawi	☒ US United States of America
☒ EE Estonia	☒ MX Mexico	
☒ ES Spain	☒ MZ Mozambique	☒ UZ Uzbekistan
☒ FI Finland	☒ NI Nicaragua	☒ VC Saint Vincent and the Grenadines
☒ GB United Kingdom	☒ NO Norway	☒ VN Viet Nam
☒ GD Grenada	☒ NZ New Zealand	☒ YU Serbia and Montenegro
☒ GE Georgia		☒ ZA South Africa
☒ GH Ghana		☒ ZM Zambia
☒ GM Gambia		☒ ZW Zimbabwe

Check-boxes below reserved for designating States which have become party to the PCT after issuance of this sheet:

☒ EG EGYPT

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

Box No. VI PRIORITY CLAIM				
The priority of the following earlier application(s) is hereby claimed:				
Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country or Member of WTO	regional application: * regional Office	international application: receiving Office
item (1) 15 OCTOBER 2002 (15.10.2002)	PD2002A000264	IT		
item (2)				
item (3)				
item (4)				
item (5)				
☐ Further priority claims are indicated in the Supplemental Box.				
The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office) identified above as:				
☐ all items ☐ item (1) ☐ item (2) ☐ item (3) ☐ item (4) ☐ item (5) ☐ other, see Supplemental Box				
<i>* Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)):</i>				
Box No. VII INTERNATIONAL SEARCHING AUTHORITY				
Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):				
ISA /				
Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):				
Date (day/month/year)	Number	Country (or regional Office)		
Box No. VIII DECLARATIONS				
The following declarations are contained in Boxes Nos. VIII (i) to (v) (mark the applicable check-boxes below and indicate in the right column the number of each type of declaration):				Number of declarations
☐ Box No. VIII (i)	Declaration as to the identity of the inventor			:
☐ Box No. VIII (ii)	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent			:
☐ Box No. VIII (iii)	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application			:
☐ Box No. VIII (iv)	Declaration of inventorship (only for the purposes of the designation of the United States of America)			:
☐ Box No. VIII (v)	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty			:

Box No. IX CHECK LIST; LANGUAGE OF FILING		
This international application contains: (a) In paper form, the following number of sheets: request (including declaration sheets) : 5 description (excluding sequence listings and/or tables related thereto) : 6 claims : 3 abstract : 1 drawings : 1 Sub-total number of sheets : 16 sequence listings : tables related thereto : <i>(for both, actual number of sheets if filed in paper form, whether or not also filed in computer readable form; see (c) below)</i> Total number of sheets : 16 (b) ☐ only in computer readable form (Section 801(a)(i)) (i) ☐ sequence listings (ii) ☐ tables related thereto (c) ☐ also in computer readable form (Section 801(a)(ii)) (i) ☐ sequence listings (ii) ☐ tables related thereto Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained the ☐ sequence listings: ☐ tables related thereto: <i>(additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)</i>	This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item): 1. ☒ fee calculation sheet : 1 2. ☒ original separate power of attorney : 2 3. ☐ original general power of attorney : 4. ☐ copy of general power of attorney; reference number, if any: 5. ☐ statement explaining lack of signature : 6. ☐ priority document(s) identified in Box No. VI as item(s): 7. ☐ translation of international application into (language): 8. ☐ separate indications concerning deposited microorganism or other biological material : 9. ☐ sequence listings in computer readable form (indicate type and number of carriers) (i) ☐ copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application) : (ii) ☐ (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter : (iii) ☐ together with relevant statement as to the identity of the copy or copies with the sequence listings mentioned in left column : 10. ☐ tables in computer readable form related to sequence listings (indicate type and number of carriers) (i) ☐ copy submitted for the purposes of international search under Section 802(b-quater) only (and not as part of the international application) : (ii) ☐ (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quater) : (iii) ☐ together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column : 11. ☒ other (specify): VOUCHER (EUR 1.889.00) : 1	
Figure of the drawings which should accompany the abstract: 1	Language of filing of the international application: ENGLISH	
Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE <i>Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).</i> Milan, Italy October 9, 2003  MODIANO Guido		

For receiving Office use only		
1. Date of actual receipt of the purported international application: 13 OCT 2003 (13. 10. 03)	2. Drawings: ☒ received: ☐ not received:	
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:	6. ☐ Transmittal of search copy delayed until search fee is paid	
4. Date of timely receipt of the required corrections under PCT Article 11(2):		
5. International Searching Authority (if two or more are competent): ISA /		

For International Bureau use only
Date of receipt of the record copy by the International Bureau:

PATENT COOPERATION TREATY

From the RECEIVING OFFICE

PCT

To:

Modiano, Guido
MODIANO & ASSOCIATI
Via Meravigli, 16
I-20123 Milano
ITALIE

NOTIFICATION OF THE INTERNATIONAL
APPLICATION NUMBER AND OF THE
INTERNATIONAL FILING DATE

(PCT Rule 20.5(c))

Date of mailing
(day/month/year)

27. 10. 2003

Applicant's or agent's file reference
38231/GM/lp

IMPORTANT NOTIFICATION

International application No.
PCT/EP 03/ 11307

International filing date (day/month/year)
13/10/2003

Priority date (day/month/year)
15/10/2002

Applicant
GEOX S.P.A.

Title of the invention

1. The applicant is hereby notified that the international application has been accorded the international application number and the international filing date indicated above.
2. The applicant is further notified that the record copy of the international application was transmitted to the International Bureau on the above date of mailing.

3. ☐ Other: _____

* The International Bureau monitors the transmittal of the record copy by the receiving Office and will notify the applicant (with Form PCT/IB/301) of its receipt. Should the record copy not have been received by the expiration of 14 months from the priority date, the International Bureau will notify the applicant (Rule 22.1(c)).

Name and mailing address of the Receiving Office
 European Patent Office, P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk
Tel. (+31-70) 340-2040
Fax: (+31-70) 340-3016

Authorized officer
S.O. RASMUSSEN

S. O. Rasmussen

Form PCT/RO/105 (Jul 1992)

PATENT COOPERATION TREATY

~~YES~~
40

PCT

From the INTERNATIONAL BUREAU

**NOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT**

(PCT Administrative Instructions, Section 411)

To:

MODIANO, Guldo
Modiano & Associati
Via Meravigli, 16
I-20123 Milano
Italy

Date of mailing (day/month/year) 14 November 2003 (14.11.03)	
Applicant's or agent's file reference 38231/GM/p	IMPORTANT NOTIFICATION
International application No. PCT/EP03/11307	International filing date (day/month/year) 13 October 2003 (13.10.03)
International publication date (day/month/year) Not yet published	Priority date (day/month/year) 15 October 2002 (15.10.02)
Applicant GEOX S.P.A. et al	

1. The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
2. This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
3. An asterisk (*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
4. The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
15 Octo 2002 (15.10.02)	PD2002A000264	IT	06 Nove 2003 (06.11.03)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 338.89.75	Authorized officer Aurora CENDANA (Fax : 338 89 75) Telephone No. (41-22) 338 9806
--	--

From the INTERNATIONAL BUREAU

PCT

NOTICE INFORMING THE APPLICANT OF THE
COMMUNICATION OF THE INTERNATIONAL
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

To:

MODIANO, Guido
Modiano & Associati
Via Meravigli, 16
I-20123 Milano
ITALIEDate of mailing (day/month/year)
29 April 2004 (29.04.2004)Applicant's or agent's file reference
38231/GM/lp

IMPORTANT NOTICE

International application No.
PCT/EP2003/011307International filing date (day/month/year)
13 October 2003 (13.10.2003)Priority date (day/month/year)
15 October 2002 (15.10.2002)

Applicant

GEOX S.P.A. et al

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this notice:

AU, AZ, BY, CH, CN, CO, DZ, EP, HU, JP, KG, KP, KR, MD, MK, MZ, RU, TM, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

AE, AG, AL, AM, AP, AT, BA, BB, BG, BR, BZ, CA, CR, CU, CZ, DE, DK, DM, EA, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, KE, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MG, MN, MW, MX, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, SC, SD, SE, SG, SK, SL, SY, TJ, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this notice is a copy of the international application as published by the International Bureau on 29 April 2004 (29.04.2004) under No. WO 2004/034830

4. TIME LIMITS for filing a demand for international preliminary examination and for entry into the national phase

The applicable time limit for entering the national phase will, subject to what is said in the following paragraph, be 30 MONTHS from the priority date, not only in respect of any elected Office if a demand for international preliminary examination is filed before the expiration of 19 months from the priority date, but also in respect of any designated Office, in the absence of filing of such demand, where Article 22(1) as modified with effect from 1 April 2002 applies in respect of that designated Office. For further details, see *PCT Gazette* No. 44/2001 of 1 November 2001, pages 19926, 19932 and 19934, as well as the *PCT Newsletter*, October and November 2001 and February 2002 issues.

In practice, time limits other than the 30-month time limit will continue to apply, for various periods of time, in respect of certain designated or elected Offices. For regular updates on the applicable time limits (20, 21, 30 or 31 months, or other time limit), Office by Office, refer to the *PCT Gazette*, the *PCT Newsletter* and the *PCT Applicant's Guide*, Volume II, National Chapters, all available from WIPO's Internet site, at <http://www.wipo.int/pct/en/index.html>.

For filing a demand for international preliminary examination, see the *PCT Applicant's Guide*, Volume I/A, Chapter IX. Only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination (at present, all PCT Contracting States are bound by Chapter II).

It is the applicant's sole responsibility to monitor all these time limits.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Ellen Moyse

Facsimile No. +41 22 740 14 35

Facsimile No. +41 22 338 89 75

PATENT COOPERATION TREATY

42

PCT

From the INTERNATIONAL BUREAU

INFORMATION CONCERNING ELECTED
OFFICES NOTIFIED OF THEIR ELECTION

(PCT Rule 61.3)

To:

MODIANO, Guido
Modiano & Associati
Via Meravigli, 16
I-20123 Milano
Italy

Date of mailing (day/month/year) 11 June 2004 (11.06.2004)		IMPORTANT INFORMATION	
Applicant's or agent's file reference 38231/GM/p			
International application No. PCT/EP2003/011307	International filing date (day/month/year) 13 October 2003 (13.10.2003)	Priority date (day/month/year) 15 October 2002 (15.10.2002)	
Applicant GEOX S.P.A. et al			

1. The applicant is hereby informed that the International Bureau has, according to Article 31(7), notified each of the following Offices of its election:

EP : AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR
National : BG, CA, CN, DE, GB, IL, JP, KP, KR, MN, NO, PL, RO, RU, SK, US

2. The following Offices have waived the requirement for the notification of their election; the notification will be sent to them by the International Bureau only upon their request:

AP : GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW
EA : AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
OA : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
National : AE, AG, AL, AM, AT, AU, AZ, BA, BB, BR, BY, BZ, CH, CO, CR, CU, CZ, DK, DM, DZ, EC,
EE, EG, ES, FI, GD, GE, GH, GM, HR, HU, ID, IN, IS, KE, KG, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
MD, MG, MK, MW, MX, MZ, NI, NZ, OM, PG, PH, PT, SC, SD, SE, SG, SL, SY, TJ, TM, TN, TR, TT, TZ,
UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

3. The applicant is reminded that he must enter the "national phase" before the expiration of 30 months from the priority date before each of the Offices listed above. This must be done by paying the national fee(s) and furnishing, if prescribed, a translation of the international application (Article 38(1)(a)), as well as, where applicable, by furnishing a translation of any annexes of the international preliminary examination report (Article 38(3)(b) and Rule 74.1).

Some offices have fixed time limits expiring later than the above-mentioned time limit. For detailed information about the applicable time limits and the acts to be performed upon entry into the national phase before a particular Office, see Volume II of the PCT Applicant's Guide.

The entry into the European regional phase is postponed until 31 months from the priority date for all States designated for the purposes of obtaining a European patent.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer: Mathieu BLANC (Fax 338 89 75)
Facsimile No. (41-22) 338.89.76	Telephone No. (41-22) 338 9988

DR. MODIANO & ASSOCIATI SPA

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EUROPEAN PATENT ATTORNEYS[®] - EUROPEAN TRADEMARK ATTORNEYS[®] - US PATENT AGENTS[®]

43

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Dr. Ing. P. Pire

TRADEMARK DEPARTMENT

SERVIZIO MARCHI

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AUTOGRAFIA

Lg. Modiano

LEGAL COUNSEL

CONSULENTI LEGALI

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U.S. Lawyer - N.Y. Bar

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Avv. K. Krichaler

Rechtsanwalt (Germany)

Avv. C. Carrelli

U.S. Lawyer - N.Y. Bar

Dr. C. Becarrie[®]

Avv. M. Richmond

U.S. Lawyer - California Bar

Avv. P. Andreottola

Avv. C. Bianchi

January 26, 2005

International Bureau of W.I.P.O.

PCT Receiving Office Section

34 Chemin des Colombettes

CH-1211 GENEVE 20

SVIZZERA

ANTICIPATED BY TELEFAX

Our Ref.: 38231/SM/lp

Re: PCT/EP2003/011307 filed October 13, 2003

Applicant: GEOX S.p.A.

Dear Sirs,

Reverting to the above PCT, this is to draw your attention to the fact that Publication WO 2004/034830 A1 has been issued April 29, 2004 with the following Applicant's address:

Via Feltrina Centro, 16
I-31044 Montebelluna (IT)

while full Applicant's address is:

Via Feltrina Centro, 16
31044 Montebelluna, Località Biadene - (Treviso)
IT

In view of the above, this is to ask issuance of a corrected front page of publication WO 2004/034830 A1 quoting the complete Applicant's address.

In support of our request, we herewith enclose a copy of:

- Page one of PCT Request as filed on October 13, 2003;
- Copy of Authorization signed by Applicant, filed on October 13, 2003;
- Front page of publication WO 2004/034830 A1 quoting the INCOMPLETE address.

In view of the impending time limit for the national entries, an urgent handling of the above matter would oblige.

MÜNCHEN
Bismarckstr. 3
Tel +49-89-23.12.16ALICANTE
Avenida De Méndez 30
Tel +34-965.96.65.40BERGAMO
Via XX Settembre 54
Tel 035-31.84.32BOLOGNA
Via del Mille 5
Tel 051-34.26.04BRESCIA
Via Argentina 54
Tel 030-22.38.03MANTOVA
Via Mantova 27
Tel 0376-32.35.55PADOVA
P.le Bassano 8
Tel 049-65.13.66TREVISO
Via Sargiac 3
Tel 0422-41.05.00VERONA
Corso Po N. 109
Tel 045-39.17.27

Thanking you beforehand for the kind attention to this matter, we remain,

Sincerely yours

Guido MODIANO
European Representative



Encls.: a.a.

~~44~~
44

(19) World Intellectual Property
Organization
International Bureau



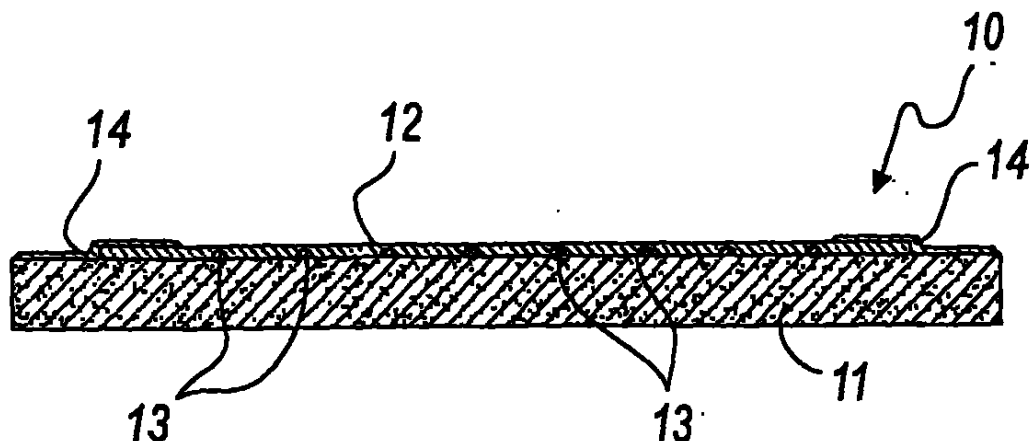
(43) International Publication Date
29 April 2004 (29.04.2004)

PCT

(10) International Publication Number
WO 2004/034830 A1

- (51) International Patent Classification: A43B 7/12 (74) Agent: MODIANO, Guido; Modiano & Associati, Via
Mervigli, 16, I-20123 Milano (IT).
- (21) International Application Number: PCT/EP2003/011307 (81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 13 October 2003 (13.10.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: PD2002A000264 15 October 2002 (15.10.2002) IT (84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Boratan patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TO).
- (71) Applicant (for all designated States except US): GEOX
S.P.A. [IT/IT]; Via Feltrina Centro, 16, I-31044 Montebel-
luna (IT). Località Biadene (Trevi)
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): POLEGATO
MORETTI, Mario [IT/IT]; Via Antonini, 7, I-31035 Cro-
cetta del Montello (IT). FERRARESE, Antonio [IT/IT];
Via Rimembranza, 23, I-37063 Isola Della Scala (IT).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: WATERPROOFED AND BREATHABLE SOLE FOR SHOES AND MANUFACTURING METHOD THEREOF



(57) Abstract: A waterproofed and breathable sole (10) for shoes, characterized in that it comprises a tread (11) made of leather or similar breathable and water-permeable material, which is covered at least partially in an upward region by a membrane (12) made of a material that is breathable and waterproof and is joined perimetrically to the tread (11) by means of a screen-printed sealing ring (14).

WO 2004/034830 A1



**Vollmacht¹
Authorisation¹
Pouvoir¹**

Bitte vor dem Ausfüllen des Formblattes Rücksicht beachten. /
Please read the notes overleaf before completing the form. /
Veuillez lire les remarques au verso avant de remplir le
formulaire.

COPY #46

Zeichen des Vertreters (der Vertreters) / Representative's reference /
Référence du (des) mandataire(s)
Ömax. 16 Positionen / max. 16 spaces / 15 caractères au maximum

38231/GM/lp

Nr. der Anmeldung (des Patents) / Application/Patent No. /
N° de la demande (du brevet)

Ich (Wir) / I (We) / Je (Nous)²

GEOX S.p.A.
Via Feltrina Centro, 16
31044 MONTEBELLUNA, Località Biadene - (Treviso)
ITALY

bevollmächtigt/je m'autorise / ds hereby authorise / autorise (autorisation) par la présente³

MODIANO Guido, JOSIF Albert, PISANTY Maurizio, STAUB Gabriella, MODIANO
ALAGEM S. Lara, MODIANO Micaela - c/o MODIANO & ASSOCIATI - Via Meravigli, 16
- 20123 MILANO - ITALY - Phone (003902) 85.90.77.77 - Telecopier (003902) 863.860 -
All professional Representatives before the European Patent Office

- ☐ Weitere Vertreter sind auf einem gesonderten Blatt angegeben. / Additional representatives indicated on supplementary sheet. /
D'autres mandataires sont mentionnés sur une feuille supplémentaire.

mich (uns) zu vertreten als / to represent me (us) as / à me (nous) représenter en tant que

- ☒ Anmelder oder Patentinhaber. / applicant(s) or patent proprietor(s). / demandeur(s) ou titulaire(s) du brevet.
☐ Einsprechenden (Einsprechende). / opponent(s). / opposant(s).

für mich (uns) zu handeln in den durch das Europäische Patentübereinkommen geschaffenen Verfahren in der (den) folgenden europäischen
Patentanmeldung(en) oder dem (den) folgenden europäischen Patent(en) und Zahlungen für mich (uns) in Empfang zu nehmen. /
to act for me (us) in all proceedings established by the European Patent Convention concerning the following European patent application(s) or
patent(s) and to receive payments on my (our) behalf. /

à agir en mon (notre) nom dans toute procédure instituée par la Convention sur le brevet européen et concernant la (les) demande(s) de brevet
ou le (les) brevet(s) européen(s) suivants et à recevoir des paiements en mon (notre) nom:

**WATERPROOFED AND BREATHABLE SOLE FOR SHOES AND MANUFACTURING METHOD
THEREOF**

- ☐ Weitere Anmeldungen oder Patente sind auf einem gesonderten Blatt angegeben. / Additional applications or patents indicated on
supplementary sheet. / D'autres demandes ou brevets sont mentionnés sur une feuille supplémentaire.
- ☒ Die Vollmacht gilt auch für Verfahren nach dem Vertrag über die Internationale Zusammenarbeit auf dem Gebiet des Patentrechts. /
This authorisation shall also apply to the same extent to any proceedings established by the Patent Cooperation Treaty. /
Ce pouvoir s'applique également à toute procédure instituée par le Traité de coopération en matière de brevets.
- ☒ Diese Vollmacht gilt auch für eventuelle europäische Teilanmeldungen. / This authorisation also covers any European divisional applications. /
Le présent pouvoir vaut également pour les demandes divisionnelles européennes qui pourraient être déposées.
- ☒ Untervollmacht kann erteilt werden. / Sub-authorisation may be given. / Le pouvoir pourra être délégué.
- ☐ Ich (Wir) widerrufe/je révoque all previous authorisations in respect of the above application(s) or patent(s). /
Je révoque (Nous révoquons) par la présente tout pouvoir antérieur, donné pour la (les) demande(s) ou le (les) brevet(s) mentionné(s) ci-dessus.

Ort/Place/Lieu: Montebelluna, Italy

Datum/Date: October 6., 2003

Unterschrift(en) / Signature(s)⁴:

GEOX S.p.A.
POLEGATO MORETTI Mario

Das Formblatt muß vom (von dem) Vollmachtgeber(n) bei juristischen Personen vom Unterschriftsberechtigten eigenhändig unterschrieben sein. Nach der Unterschrift bitte den
(die) Namen des (der) Unterschrifters in Druckschrift wiederholen (bei juristischen Personen die Stellung des Unterschriftsberechtigten innerhalb der Gesellschaft angeben). /
The form must bear the personal signature(s) of the authoriser(s) in the case of legal persons, that of the officer empowered to sign. After the signature please print the name(s)
of the signatory(ies) adding, in the case of legal persons, his (their) position within the company. /
Le formulaire doit être signé de la propre main du (des) mandant(s) dans le cas de personnes morales, de la personne ayant qualité pour signer. Veuillez ajouter en caractères
d'imprimerie, après la signature, le (les) nom(s) du (des) signataire(s) en mentionnant, dans le cas de personnes morales, ses (leurs) fonctions au sein de la société.

PCT

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

COPY

For receiving Office use only

PCT/EP 03 / 11307 International Application No.	
13.10.03 International Filing Date	13 OCT 2003
EUROPEAN PATENT OFFICE PCT INTERNATIONAL APPLICATION Name of receiving Office and "PCT International Application"	
Applicant's or agent's file reference (if desired) (12 characters maximum) 38231/GM/lp	

Box No. I TITLE OF INVENTION WATERPROOFED AND BREATHABLE SOLE FOR SHOES AND MANUFACTURING METHOD THEREOF	
Box No. II APPLICANT ☐ This person is also inventor	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) GEOX S.p.A. Via Feltrina Centro, 16 31044 MONTEBELLUNA, Località Biadene - (Treviso) IT	
Telephone No.	
Facsimile No.	
Teleprinter No.	
Applicant's registration No. with the Office	
State (that is, country) of nationality: IT	State (that is, country) of residence: IT
This person is applicant for the purposes of: ☐ all designated States ☒ all designated States except the United States of America ☐ the United States of America only ☐ the States indicated in the Supplemental Box	
Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) POLEGATO MORETTI Mario Via Antonini, 7 31035 CROCETTA DEL MONTELLO IT	
This person is: ☐ applicant only ☒ applicant and inventor ☐ inventor only (If this check-box is marked, do not fill in below.)	
Applicant's registration No. with the Office	
State (that is, country) of nationality: IT	State (that is, country) of residence: IT
This person is applicant for the purposes of: ☐ all designated States ☐ all designated States except the United States of America ☒ the United States of America only ☐ the States indicated in the Supplemental Box	
☒ Further applicants and/or (further) inventors are indicated on a continuation sheet.	
Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE	
The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as: ☒ agent ☐ common representative	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) MODIANO Guido MODIANO & ASSOCIATI Via Meravigli, 16 20123 MILANO ITALY	
Telephone No. (003902) 85.90.77.77	
Facsimile No. (003902) 86.38.60	
Teleprinter No.	
Agent's registration No. with the Office	
☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.	

PATENT COOPERATION TREATY

48

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

MODIANO, Guido et al.
MODIANO & ASSOCIATI
Via Meravigli, 16
I-20123 Milano
ITALIENOTIFICATION OF RECEIPT
OF DEMAND BY COMPETENT INTERNATIONAL
PRELIMINARY EXAMINING AUTHORITY(PCT Rules 59.3(e) and 61.1(b), first sentence
and Administrative Instructions, Section 601(a))Date of mailing
(day/month/year)

25-05-2004

Applicant's or agent's file reference
38231/GM/Ip

IMPORTANT NOTIFICATION

International application No.

PCT/EP03/11307

International filing date (day/month/year)

13/10/2003

Priority date (day/month/year)

15/10/2002

Applicant

GEOX S.P.A. et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority considers the following date as the date of receipt of the demand for international preliminary examination of the international application:

05/05/2004

2. This date of receipt is:

- ☒ the actual date of receipt of the demand by this Authority (Rule 61.1(b)).
☐ the actual date of receipt of the demand on behalf of this Authority (Rule 59.3(e)).
☐ the date on which this Authority has, in response to the invitation to correct defects in the demand (Form PCT/IPEA/404), received the required corrections.

3. ☐ **ATTENTION:** That date of receipt is after the expiration of 19 months from the priority date. Consequently, in respect of some Offices, the demand does not have the effect of postponing the entry into the national phase until 30 months from the priority date (or later in some Offices) (Article 39(1)) and the acts for entry into the national phase must therefore be performed within 20 months from the priority date (or later in some Offices). However, in respect of some other Offices, the time limit of 30 months (or later) may nevertheless apply. See the Annex to Form PCT/IS/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

- ☐ (If applicable) This notification confirms the information given by telephone, facsimile transmission or in person on:

4. Only where paragraph 3 applies, a copy of this notification has been sent to the International Bureau.

Name and mailing address of the IPEA/

European Patent Office
D-80298 Munich
Tel. (+49-89) 2399-0, Tx: 523636 epmu d
Fax: (+49-89) 2399-4465

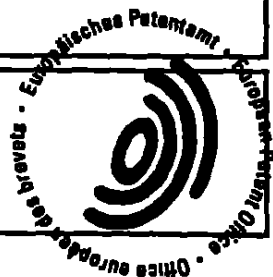
Authorized officer

LUOMA M P

Tel. (+49-89) 2399-8929

Form PCT/IPEA/402 (April 2002; reprint January 2004)

(19/05/2004)



From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

MODIANO, Guido et al.
MODIANO & ASSOCIATI
Via Meravigli, 16
I-20123 Milano
ITALIE

WRITTEN OPINION

(PCT Rule 66)

Date of mailing
(day/month/year)

25/05/2004

Applicant's or agent's file reference

38231/GN/Ip

REPLY DUE

within 2 / 00 months/days
from the above date of mailing

International application No.

PCT/EP03/11307

International filing date (day/month/year)

13/10/2003

Priority date (day/month/year)

15/10/2002

International Patent Classification (IPC) or both national classification and IPC

A43B7/12

Applicant

GEOX S.P.A. et al.

1. This written opinion is the first drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application
3. The applicant is hereby invited to reply to this opinion.
- When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).
- How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.
- Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis.
For an informal communication with the examiner, see Rule 66.6.
- If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 15/02/2005

Name and mailing address of the IPEA/

European Patent Office
D-80298 Munich
Tel. (+49-89) 2399-0, Tx: 523656 epnu d
Fax: (+49-89) 2399-4465

Authorized officer

Examiner

Formalities officer
(incl. extension of time limits)
Tel. (+49-89) 2399 2828

I. Basis of the opinion

1. The basis of this written opinion is the application as originally filed.

V. Reasoned statement under Rule 66.2(a)(II) with regard to novelty, inventive step or industrial applicability

1. In light of the documents cited in the international search report, it is considered that the invention as defined in at least some of the claims does not appear to meet the criteria mentioned in Article 33(1) PCT, i.e. does not appear to be novel and/or to involve an inventive step (see international search report, in particular the documents cited X and/or Y and corresponding claims references).
2. If amendments are filed, the applicant should comply with the requirements of Rule 66.8 PCT and indicate the basis of the amendments in the documents of the application as originally filed (Article 34 (2) (b) PCT) otherwise these amendments may not be taken into consideration for the establishment of the international preliminary examination report. The attention of the applicant is drawn to the fact that if the application contains an unnecessary plurality of independent claims, no examination of any of the claims will be carried out.

NB: Should the applicant decide to request detailed substantive examination, then an international preliminary examination report will normally be established directly. Exceptionally the examiner may draw up a second written opinion, should this be explicitly requested.

PATENT COOPERATION TREATY

57

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

MODIANO, Guido et al.
MODIANO & ASSOCIATI
Via Meravigli, 16
I-20123 Milano
ITALIE

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing (day/month/year) 17/08/2004	
Applicant's or agent's file reference 38231/GH/Ip	IMPORTANT NOTIFICATION
International application No. PCT/EP03/11307	International filing date (day/month/year) 13/10/2003
	Priority date (day/month/year) 15/10/2002
Applicant GEOX S.P.A. et al.	

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the IPEA/  European Patent Office D-80298 Munich Tel. (+49-89) 2399-0, Tx: 523656 eprmu d Fax: (+49-89) 2399-4465	Authorized officer LUOMA M P Tel. (+49-89) 2399 2828
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Form PCT/IPEA/16 (August 2002) P20473



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

(Rationalised Report according to the Notice of the President of the EPO published in the OJ11/2001)

Applicant's or agent's file reference 38231/GM/Ip	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP03/11307	International filing date (day/month/year) 13/10/2003	Priority date (day/month/year) 15/10/2002
International Patent Classification (IPC) or national classification and IPC A43B7/12		
Applicant GEOX S.P.A. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 2 sheets, including this cover sheet.
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consists of a total of _____ sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the report
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 05/05/2004	Date of completion of this report 12/08/2004
Name and mailing address of the IPEA/  European Patent Office D-80298 Munich Tel. (+49-89) 2399-0, Tx: 523656 epmu d Fax: (+49-89) 2399-4465	Authorized officer DEUTSCH J P Tel. (+49-89) 2399 2828

Form PCT/IPEA/409 (cover sheet) P20476 (October 2002)



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP03/11307

I. Basis of the report

The basis of this international preliminary examination is the application as originally filed.

V. Reasoned statement under Rule 66.2(a)(II) with regard to novelty, inventive step or industrial applicability

In light of the documents cited in the international search report, it is considered that the invention as defined in at least some of the claims does not appear to meet the criteria mentioned in Article 33(1) PCT, i.e. does not appear to be novel and/or to involve an inventive step (see international search report, in particular the documents cited X and/or Y and corresponding claim references).

54

TRATADO DE COOPERACIÓN DE PATENTES
PCT
INFORME DE EXAMEN PRELIMINAR INTERNACIONAL
(Artículo 36 y Regla 70 del PCT)

Referencia del expediente del agente o solicitante 38231/GM/IP	PARA ACTUACIONES ADICIONALES	Ver notificación de Transmisión del Reporte de Examen Preliminar (Formato PCT/IPEA416)
Solicitud Internacional No. PCT/EP03/11307	Fecha de presentación internacional (día/mes/año) 13/10/2003	Fecha de prioridad (día/mes/año) 15/10/2002
Clasificación Internacional de Patentes (IPC) o clasificación nacional e IPC A43B 7/12		
Solicitante GEOX S.P.A. et al.		

1. Este Informe de examen preliminar internacional ha sido preparado por esta Administración encargada del Examen Preliminar Internacional y se envía al solicitante en concordancia con el artículo 36.
2. Este INFORME consta de una total de <u> 2 </u> hojas, incluyendo la portada ☐ Este informe también se acompaña de ANEXOS, esto es documentos de la descripción, reivindicaciones y/o dibujos que han sido corregidos y que son la base de este informe y/o documentos que contienen rectificaciones realizadas ante esta Administración (Ver Regla 70.16 y Sección 607 de las Instrucciones Administrativas según el PCT) Estos anexos constan de un total de <u> </u> hojas.
3. Este informe contiene indicaciones relativas a los siguientes aspectos: I ☒ Fundamentos del Informe II ☐ Prioridad III ☐ No se establece concepto relativo a la novedad, nivel inventivo y aplicación Industrial IV ☐ Carencia de unidad de la invención V ☒ Declaración razonada según el artículo 35(2), en relación con la novedad, nivel inventivo o aplicación industrial; citaciones y explicaciones que soportan dicha declaración VI ☐ Ciertos documentos citados VII ☐ Ciertos defectos de la solicitud internacional VIII ☐ Ciertas observaciones respecto a la solicitud internacional

Fecha de presentación de la demanda 05/052004	Fecha de terminación de este reporte 12/08/2004
Nombre y dirección de correo de la autoridad encargada del examen preliminar Oficina de patentes Europea D-80298 Munich Tel.: (+49-89) 2399-0, Tx: 523656 apmu d Fax.: (+49-89) 2399-4485	Funcionario Autorizado DEUTSCH J P Teléfono No. (+49-89) 2399 2828

I. Base del Informe

La base de este informe de examen preliminar internacional es la solicitud como se presentó originalmente.

V. Declaración motivada según la Regla 66.2(a)(ii) en cuanto a la novedad, el nivel inventivo y la aplicación Industrial

A la luz de los documentos citados en el informe de búsqueda internacional, se considera, que la invención, tal y como define en al menos algunas de las reivindicaciones, al parecer no cumple con los criterios establecidos en el artículo 33(1) del PCT, es decir, no parece ser novedosa y/o comprender un nivel inventivo (ver el informe de búsqueda internacional, en particular los documentos citados con X y/o Y, y sus correspondientes números de reivindicaciones).

RESUMEN

5 La presente invencion tiene por objeto una suela (10) impermeabilizada y transpirante para calzados, caracterizada porque comprende una capa de rozamiento (11) de cuero, o material similar transpirante y permeable al agua, por lo menos parcialmente recubierto superiormente por la membrana (12) de material transpirante impermeable al agua perimetralmente unida a la capa de rozamiento (11) con una corona de sellado (14) serigrafiada.

SUELA IMPERMEABILIZADA Y TRANSPIRANTE PERFECCIONADA PARA CALZADOS Y SU PROCEDIMIENTO DE FABRICACIÓN

5

DESCRIPCIÓN

La presente invención tiene por objeto una suela impermeabilizada y transpirante perfeccionada para calzados y su procedimiento de realización.

10 Como es conocido, el problema principal que se encuentra con el uso de los calzados con suela normal de material natural tal como cuero o equivalente, está constituido por el mojado.

Efectivamente, cuando la lluvia y el mal tiempo provocan calles mojadas y resbaladizas resulta desaconsejable el uso de calzados con suela de cuero de la que éste, apropiado por su característica de ser transpirante y saludable para el pie, no es
15 impermeable, sino que absorbe el agua.

Cuanto más reducido es el espesor del cuero mayor es la velocidad con la cual el mismo se impregna de agua y de humedad hasta mojar el pie del usuario.

Por tanto el uso de las suelas con capa de roce de cuero está vinculado a las condiciones meteorológicas y, por tal motivo, los calzados con este tipo de material están
20 principalmente previstos por las sociedades productoras en las colecciones estivales en los países en los cuales la estación seca es más pronunciada.

Se ha puesto a punto una suela (descrita en la patente italiana n° 1 263 332) que comprende una capa de roce de cuero o material equivalente que está por lo menos parcialmente recubierta superiormente por una membrana de material permeable al vapor e impermeable al agua.
25

La membrana impermeable y transpirante está fijada sobre la suela mediante un adhesivo dispuesto por puntos y una corona perimetral de sellado de material polimérico, por ejemplo poliuretano, es inyectada en el molde para ensamblar el conjunto.

Incluso constituyendo un notable paso adelante técnico por haber
30 impermeabilizado la capa de rozamiento de cuero, esta suela tiene sin embargo algunas limitaciones.

Una primera limitación deriva propiamente de la naturaleza misma del cuero que es un material que, como se ha expuesto anteriormente, es transpirante, pero el grado de transpiración no es tan elevado que elimine en poco tiempo todo el calor y el vapor que se

forma con el uso en el interior del calzado.

Una segunda limitación se debe al hecho de que, como se ha expuesto, el sellado se realiza mediante inyección en el molde de una corona de material plástico.

5 Dicho proceso hace necesaria la creación de sellados de espesor importante y consiguientemente tiene lugar un aumento de la rigidez de la suela, por lo que algunas tipologías de calzados donde sea necesario una elevada flexibilidad, tales como calzados de señora, encuentran dificultades de realización.

No es secundario el coste elevado de dicha tecnología (realización de un molde de aluminio para cada modelo y medida de calzado que se quiere realizar).

10 Se ha buscado obviar el problema de los espesores utilizando, para el sellado perimetral, unas películas de material poliuretánico termoplástico de un espesor de 200 micrones.

15 Dicho procedimiento, si bien permite por un lado obtener manufacturados cualitativamente aceptables, por el otro resulta ser extremadamente costoso puesto que es casi completamente manual.

El objetivo principal de la presente invención es poner a punto una suela, y su procedimiento de realización, que resuelva los inconvenientes anteriormente lamentados en los tipos conocidos de calzados impermeabilizados y transpirantes con capa de rozamiento de cuero o equivalente.

20 Consiguientemente, el primer objetivo es poner a punto una suela que pueda ser flexible y delgada.

Otro objetivo es incrementar la transpiración.

Otro objetivo importante es poner a punto una suela caracterizada por la posibilidad de una elevada flexibilidad de producción.

25 Aún otro objetivo es aumentar el confort del usuario.

Otro objetivo es poner a punto una suela que resulte producible a bajo coste y por ello vendible a un precio competitivo.

Un último objetivo es poner a punto una suela que sea realizable con instalaciones y técnicas conocidas.

30 Estos y otros objetivos, que se apreciarán más claramente a continuación, se alcanzan con una suela impermeabilizada y transpirante para calzados caracterizada porque comprende una capa de rozamiento de cuero, o material similar transpirante y permeable al agua, por lo menos parcialmente recubierto superiormente por una membrana de material transpirante impermeable al agua perimetralmente unida a la capa

de rozamiento con una corona de sellado serigrafiada.

Ulteriores características y ventajas de la invención resaltan de la descripción detallada de algunas de sus formas de realización, ilustradas a título indicativo, pero no por ello limitativo de su alcance, en los planos adjuntos en los cuales:

5

la fig. 1 es una vista esquemática en sección de las suelas según la invención;

la fig. 2 es una vista esquemática en sección de una fase del procedimiento de producción de la suela de la fig. 1;

10

la fig. 3 es una vista esquemática en sección de una fase del procedimiento de producción siguiente a la de la fig. 2.

15

Con referencia a la figura 1 anteriormente citada, una suela impermeabilizada y transpirante perfeccionada para calzados está conjuntamente indicada con el número de referencia 10 y comprende una capa de rozamiento 11 de cuero, o material similar transpirante permeable al agua (tal como piel, material sintético de célula abierta etc.), recubierta superiormente por una membrana 12 impermeable al agua y permeable al vapor (transpirante) y preferentemente realizada en politetrafluoroetileno (PTFE) expandido.

20

La membrana 12, en este caso desprovista de cualquier tipo de soporte, está realizada con espesores que pueden variar entre 5 y 40 micrones.

La membrana 12 está adecuadamente perimetralmente separada del borde de la capa de rozamiento 11.

La membrana 12 está preferentemente fijada sobre la capa de rozamiento 11 mediante adhesivo 13 por puntos y una corona perimetral 14 de sellado está realizada mediante serigrafía.

25

El procedimiento de producción de la corona 14 prevé una primera fase de preparación de una estructura 15 constituida por un tejido de medidas suficientemente anchas (de 12 a 43 hilos por centímetro) tal que permita el paso de una solución o dispersión de polímero, en particular poliuretano, que tiene un residuo seco sustancialmente de por lo menos el 60%.

30

Dicha solución o dispersión es conocida y puede obtenerse en el mercado.

Dicho material, a fin de permitir su mayor resistencia tanto a temperaturas de por lo menos 50-60°C, como para garantizar su integridad química (en particular resistencia a la hidrólisis y la estabilidad al envejecimiento), está adicionada con agentes reticulantes adecuados, esto es que favorecen la reacción de reticulación, y por tanto capaces de

reaccionar con los grupos funcionales aún libres en el interior del poliuretano.

Estos agentes pueden ser por ejemplo isocianatos (3-5%) adecuadamente catalizados para aumentar la reactividad, por ejemplo mediante aminas.

5 En dicha fase preparatoria es también posible cubrir algunas zonas de la estructura con un proceso de fotoincisión en las zonas en que no deben ser recubiertas por la solución, por ejemplo las que son a continuación interesadas por la membrana 12, naturalmente a excepción de las zonas correspondientes a los bordes de la misma.

10 Se procede después al encolado de la membrana 12, ya tratada con puntos 13 de cola, a la capa de rozamiento 11 mediante una prensa en caliente (no ilustrada en las figuras).

La siguiente fase (fig. 2) consiste en poner la capa de rozamiento 11 bajo la estructura 15 y verter (fig. 3) dicha solución o dispersión de polímero sobre la estructura 15.

15 Con una rasqueta se favorece la penetración del material a través de las tramas de la estructura 15.

El material, que está en estado en fluido, por efecto de la evaporación de la fase solvente deja depositado sobre la capa de rozamiento 11 y sobre la membrana 12 la fase sólida contenida en el mismo realizando la corona de sellado 14.

20 El conjunto de la capa de rozamiento 11, membrana 12 y corona de sellado 14, correspondiente a la fig.1, es tomada y secada.

Después de la realización de la corona 14 puede seguir una fase de calentamiento sustancialmente a 60-80°C para acelerar el reticulado.

25 Dicha fase de calentamiento puede ser alternativa o sumarse a la citada adición de isocianato (agente que favorece el reticulado).

Con dicha tecnología se pueden obtener películas de espesor deseado (del orden de 100-500 micrones), constante y reproducible.

Variando el número de hilos por centímetro de la estructura 15 se varía la cantidad de fluido que se depositará.

30 Se pueden prever diversas variantes con la aplicación previa sobre la capa de rozamiento 11 de promotores de adhesión, constituidos siempre por dispersiones o soluciones de polímeros poliuretánicos, pero de baja viscosidad (menos de 600 centipoises, según el método Brookfield) capaces de penetrar a través de las fibras del cuero.

En una alternativa se pueden utilizar poliuretanos en solución o dispersión con bajo

peso molecular.

En este caso es también oportuno prever una adición de un agente reticulante como isocianato catalizado, a fin de bloquear la reversibilidad del proceso por efecto de la temperatura.

5 Otra variante puede estar constituida por la aplicación de varias capas de dispersión de polímero para garantizar la continuidad de la película que creará la corona 14.

Se ha constatado en la práctica que se han alcanzado la finalidad y los objetivos propuestos por la presente invención.

10 Efectivamente, la suela presenta las características cualitativas de las suelas de cuero, en particular la transpiración, con las características cualitativas de las suelas de goma un material sintético, en particular la impermeabilidad, y todo ello con espesores reducidos por efecto de la realización del sellado perimetral mediante serigrafía.

15 El principio de la técnica serigráfica es conocido, pero utilizado únicamente para la realización de los detalles decorativos sobre piezas de vestido y calzado.

Pruebas prácticas han demostrado que la técnica, adecuadamente adaptada como se ha descrito anteriormente, puede ser empleada de modo útil como medio de realización de un sellado perimetral de espesor muy reducido entre la membrana 12 y la capa de rozamiento 11.

20 La suela 10 puede por tanto ser realizada delgada y flexible y utilizada también para los calzados de señora.

Debe observarse que la misma está realizada sin particulares dificultades con un proceso productivo que es operativamente más flexible que el actual.

25 La invención así ideada es susceptible en numerosas modificaciones y variantes, todas las cuales están comprendidas dentro del alcance del concepto inventivo.

Además todos los detalles podrán ser sustituidos por otros elementos técnicamente equivalentes.

En la práctica, los materiales empleados, siempre compatibles con el uso contingente, así como las dimensiones, podrán ser cualesquiera, según las exigencias.

REIVINDICACIONES

- 5 1. Suela (10) impermeabilizada y transpirante para calzados, caracterizada porque comprende una capa de rozamiento (11) de cuero, o material similar transpirante y permeable al agua, por lo menos parcialmente recubierto superiormente por la membrana (12) de material transpirante impermeable al agua perimetralmente unida a la capa de rozamiento (11) con una corona de sellado (14) serigrafiada.
- 10 2. Suela según la reivindicación 1, caracterizada porque dicha membrana (12) impermeable al agua y permeable al vapor está realizada en politetrafluoroetileno expandido.
- 15 3. Suela según la reivindicación 1, caracterizada porque dicha membrana (12) impermeable al agua y permeable al vapor está desprovista de cualquier tipo de soporte y realizada con espesores comprendidos entre 5 y 40 micrones.
4. Suela según la reivindicación 1, caracterizada porque dicha membrana (12) está perimetralmente separada del borde de dicha capa de rozamiento (11).
- 20 5. Suela según la reivindicación 1, caracterizada porque dicha membrana (12) está fijada sobre dicha capa de rozamiento (11) mediante adhesivo (13) por puntos.
- 25 6. Procedimiento para la fabricación de una suela según una o varias de las reivindicaciones anteriores, que consiste en:
- 30 - preparar una estructura (15) que comprende, por lo menos en correspondencia con las zonas perimetrales de la posición prevista de la membrana (12) sobre dicha capa de rozamiento (11), un tejido de malla suficientemente ancha tal que permita el paso de una solución o dispersión de polímero que tiene un residuo seco de por lo menos el 60% en peso adicionado con agentes endurecedores,
- disponer dicha membrana (12) sobre dicha capa de rozamiento (11),
- poner dicha capa de rozamiento (11) y dicha membrana (12) bajo dicha estructura (15), verter dicha solución o dispersión de polímero sobre dicha estructura (15)

y hacerla penetrar a través de las mallas de dicha estructura (15), formando por lo menos una capa de una corona (14) de sellado,

5 - tomar el conjunto constituido por la capa de rozamiento (11), membrana (12) y corona (14) y secarlo.

10 7. Procedimiento según la reivindicación 6, caracterizado porque dicha solución o dispersión de polímero que tiene un residuo seco de por lo menos 60% en peso es poliuretánica.

8. Procedimiento según las reivindicaciones 6 y 7, caracterizado porque dicha solución o dispersión de polímero poliuretánico que tiene un residuo seco de por lo menos 60% en peso está adicionada con agentes reticulantes.

15 9. Procedimiento según la reivindicación 8, caracterizado porque dichos agentes reticulantes son isocianatos catalizados.

20 10. Procedimiento según una o varias de las reivindicaciones 6 a 9, caracterizado porque comprende una fase de calentamiento, después de la realización de dicha corona (14), para acelerar en el reticulado de dicha solución o dispersión de polímero.

11. Procedimiento según la reivindicación 10, caracterizado porque dicho calentamiento se efectúa sustancialmente a 60-80°C.

25 12. Procedimiento según la reivindicación 8, que consiste en la aplicación preventiva sobre dicha capa de rozamiento (11) de promotores de adhesión constituidos por dispersiones o soluciones de polímeros poliuretánicos de baja viscosidad, es decir capaces de penetrar a través de las fibras de cuero.

30 13. Procedimiento según la reivindicación 6, que consiste en la aplicación preventiva sobre dicha capa de rozamiento (11) de poliuretanos de bajo peso molecular en solución o dispersión.

14. Procedimiento según la reivindicación 13, caracterizado porque dichos

poliuretanos de bajo peso molecular en solución o dispersión están adicionados con agentes reticulantes.

5 15. Procedimiento según la reivindicación 14, caracterizado porque dichos agentes reticulantes son isocianatos catalizados.

10 16. Procedimiento según la reivindicación 6, que, antes de la disposición de dicha membrana (12) sobre dicha estructura (15), consiste en cubrir con un proceso de fotoincisión las zonas de dicha estructura (15) que no deben ser recubiertas por dicha solución o dispersión de polímero.

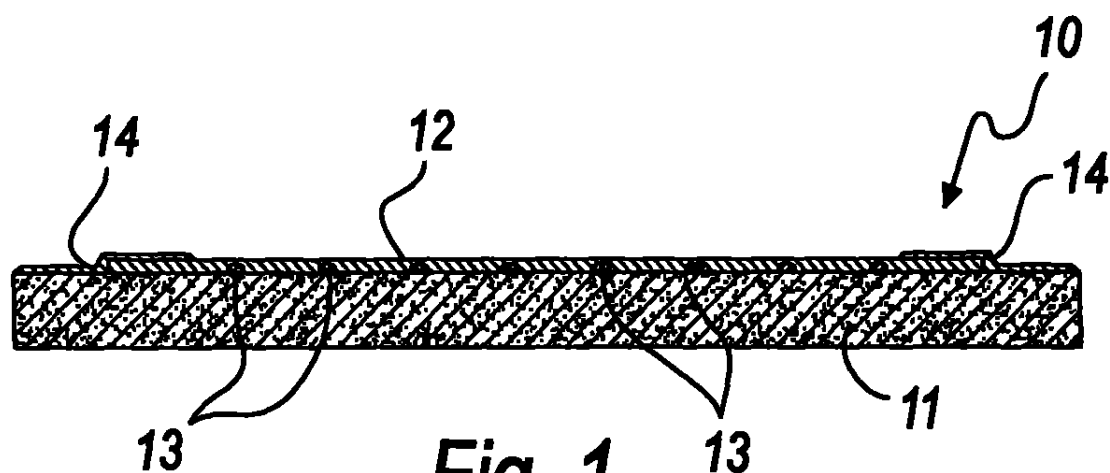
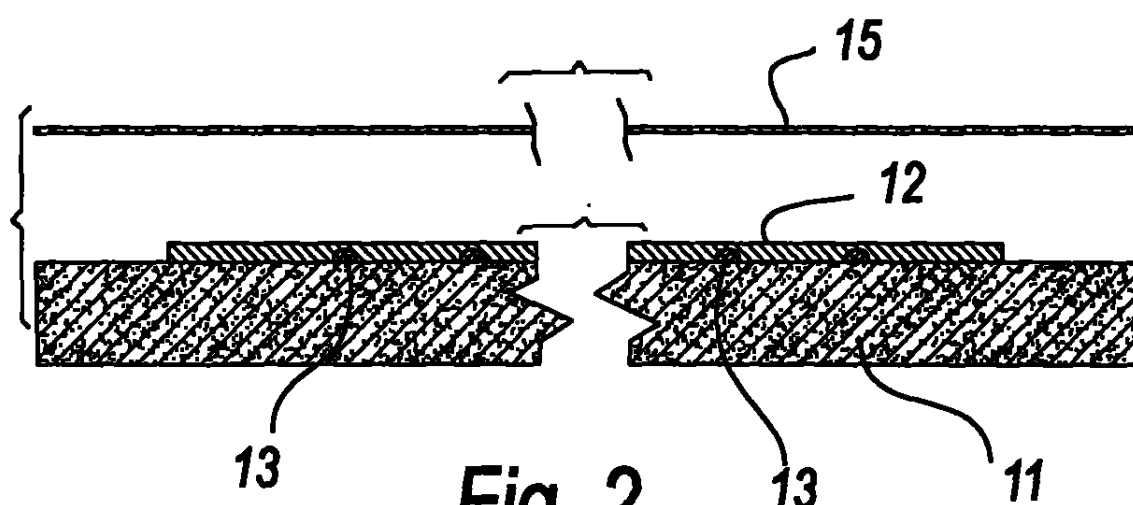
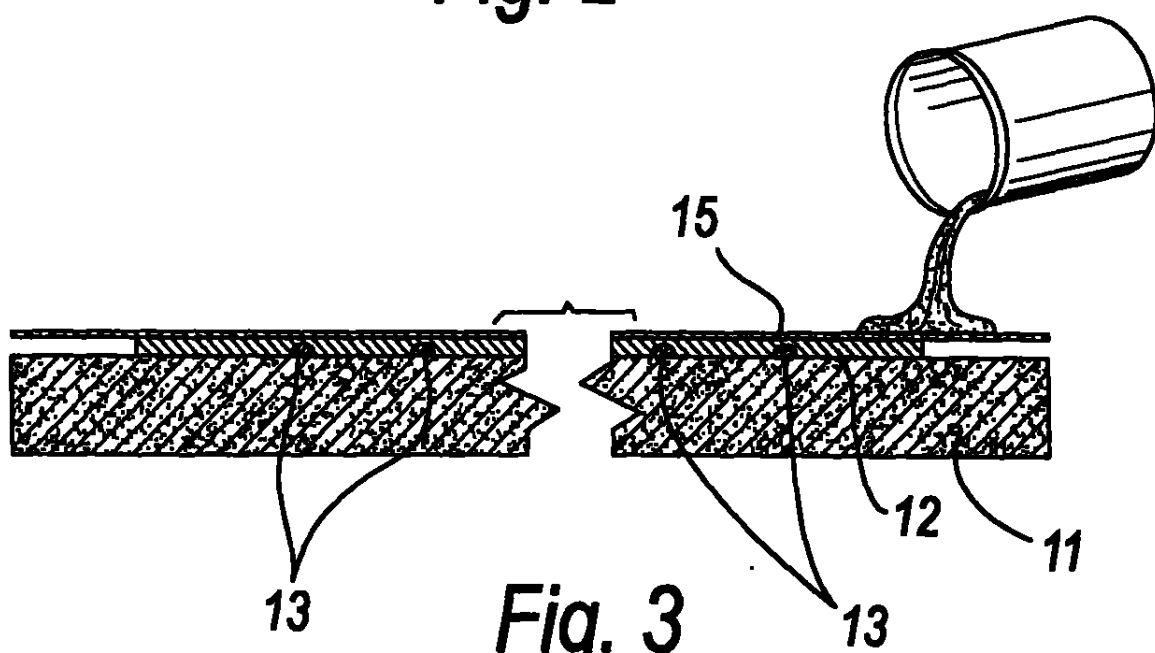
15 17. Procedimiento según la reivindicación 16, caracterizado porque dichas zonas cubiertas con fotoincisión son las que a continuación son interesadas por dicha membrana (12), a excepción de las zonas correspondientes a los bordes de la misma.

20 18. Procedimiento según la reivindicación 6, caracterizado porque la disposición de dicha membrana (12) sobre dicha capa de rozamiento (11) comprende también el encolado de la misma membrana (12), previamente tratada con puntos (13) de cola a dicha capa de rozamiento (11).

19. Procedimiento según la reivindicación 18, caracterizado porque dicho encolado se efectúa mediante una prensa en caliente.

25 20. Procedimiento según la reivindicación 6, caracterizado porque la penetración de dicha solución o dispersión de polímero a través de la trama de dicha estructura (15) está favorecida por el empleo de una rasqueta.

30 21. Suela impermeabilizada y transpirante para calzados y su procedimiento de realización según una o varias de las reivindicaciones anteriores, caracterizada por cuanto se ha descrito e ilustrado en las adjuntas láminas de dibujos.

**Fig. 1****Fig. 2****Fig. 3**

RESUMEN

- 5 Una suela (10) impermeabilizada y transpirante para calzados, caracterizada porque comprende una capa de rozamiento (11) de cuero, o material similar transpirante y permeable al agua, por lo menos parcialmente recubierto superiormente por la membrana (12) de material transpirante impermeable al agua perimetralmente unida a la capa de rozamiento (11) con una corona de sellado (14) serigrafiada.

SUELA IMPERMEABILIZADA Y TRANSPIRANTE PERFECCIONADA PARA CALZADOS Y SU PROCEDIMIENTO DE FABRICACIÓN

5

DESCRIPCIÓN

La presente invención tiene por objeto una suela impermeabilizada y transpirante perfeccionada para calzados y su procedimiento de realización.

10 Como es conocido, el problema principal que se encuentra con el uso de los calzados con suela normal de material natural tal como cuero o equivalente, está constituido por el mojado.

Efectivamente, cuando la lluvia y el mal tiempo provocan calles mojadas y resbaladizas resulta desaconsejable el uso de calzados con suela de cuero de la que ésta, apropiado por su característica de ser transpirante y saludable para el pie, no es impermeable, sino que absorbe el agua.

15 Cuanto más reducido es el espesor del cuero mayor es la velocidad con la cual el mismo se impregna de agua y de humedad hasta mojar el pie del usuario.

Por tanto el uso de las suelas con capa de roce de cuero está vinculado a las condiciones meteorológicas y, por tal motivo, los calzados con este tipo de material están principalmente previstos por las sociedades productoras en las colecciones estivales en los países en los cuales la estación seca es más pronunciada.

25 Se ha puesto a punto una suela (descrita en la patente US 5,598,644 y EP 0 619 959) que comprende una capa de roce de cuero o material equivalente que está por lo menos parcialmente recubierta superiormente por una membrana de material permeable al vapor e impermeable al agua.

La membrana impermeable y transpirante está fijada sobre la suela mediante un adhesivo dispuesto por puntos y una corona perimetral de sellado de material polimérico, por ejemplo poliuretano, es inyectada en el molde para ensamblar el conjunto.

30 Incluso constituyendo un notable paso adelante técnico por haber impermeabilizado la capa de rozamiento de cuero, esta suela tiene sin embargo algunas limitaciones.

Una primera limitación deriva propiamente de la naturaleza misma del cuero que es un material que, como se ha expuesto anteriormente, es transpirante, pero el grado de transpiración no es tan elevado que elimine en poco tiempo todo el calor y el vapor que se

forma con el uso en el interior del calzado.

Una segunda limitación se debe al hecho de que, como se ha expuesto, el sellado se realiza mediante inyección en el molde de una corona de material plástico.

5 Dicho proceso hace necesaria la creación de sellados de espesor importante y consiguientemente tiene lugar un aumento de la rigidez de la suela, por lo que algunas tipologías de calzados donde sea necesario una elevada flexibilidad, tales como calzados de señora, encuentran dificultades de realización.

No es secundario el coste elevado de dicha tecnología (realización de un molde de aluminio para cada modelo y medida de calzado que se quiere realizar).

10 Se ha buscado obviar el problema de los espesores utilizando, para el sellado perimetral, unas películas de material poliuretánico termoplástico de un espesor de 200 micrones.

Dicho procedimiento, si bien permite por un lado obtener manufacturados cualitativamente aceptables, por el otro resulta ser extremadamente costoso puesto que es casi completamente manual.

15 El objetivo principal de la presente invención es poner a punto una suela, y su procedimiento de realización, que resuelva los inconvenientes anteriormente lamentados en los tipos conocidos de calzados impermeabilizados y transpirantes con capa de rozamiento de cuero o equivalente.

20 Consiguientemente, el primer objetivo es poner a punto una suela que pueda ser flexible y delgada.

Otro objetivo es incrementar la transpiración.

Otro objetivo importante es poner a punto una suela caracterizada por la posibilidad de una elevada flexibilidad de producción.

25 Aún otro objetivo es aumentar el confort del usuario.

Otro objetivo es poner a punto una suela que resulte producible a bajo coste y por ello vendible a un precio competitivo.

Un último objetivo es poner a punto una suela que sea realizable con instalaciones y técnicas conocidas.

30 Estos y otros objetivos, que se apreciarán más claramente a continuación, se alcanzan con una suela impermeabilizada y transpirante para calzados caracterizada porque comprende una capa de rozamiento de cuero, o material similar transpirante y permeable al agua, por lo menos parcialmente recubierto superiormente por una membrana de material transpirante impermeable al agua perimetralmente unida a la capa

de rozamiento con una corona de sellado serigrafiada.

Ulteriores características y ventajas de la invención resaltan de la descripción detallada de algunas de sus formas de realización, ilustradas a título indicativo, pero no por ello limitativo de su alcance, en los planos adjuntos en los cuales:

5

la fig. 1 es una vista esquemática en sección de las suelas según la invención;

la fig. 2 es una vista esquemática en sección de una fase del procedimiento de producción de la suela de la fig. 1;

10

la fig. 3 es una vista esquemática en sección de una fase del procedimiento de producción siguiente a la de la fig. 2.

15

Con referencia a la figura 1 anteriormente citada, una suela impermeabilizada y transpirante perfeccionada para calzados está conjuntamente indicada con el número de referencia 10 y comprende una capa de rozamiento 11 de cuero, o material similar transpirante permeable al agua (tal como piel, material sintético de célula abierta etc.), recubierta superiormente por una membrana 12 impermeable al agua y permeable al vapor (transpirante) y preferentemente realizada en politetrafluoroetileno (PTFE) expandido.

20

La membrana 12, en este caso desprovista de cualquier tipo de soporte, está realizada con espesores que pueden variar entre 5 y 40 micrones.

La membrana 12 está adecuadamente perimetralmente separada del borde de la capa de rozamiento 11.

La membrana 12 está preferentemente fijada sobre la capa de rozamiento 11 mediante adhesivo 13 por puntos y una corona perimetral 14 de sellado está realizada mediante serigrafía.

25

El procedimiento de producción de la corona 14 prevé una primera fase de preparación de una estructura 15 constituida por un tejido de medidas suficientemente anchas (de 12 a 43 hilos por centímetro) tal que permita el paso de una solución o dispersión de polímero, en particular poliuretano, que tiene un residuo seco sustancialmente de por lo menos el 60%.

30

Dicha solución o dispersión es conocida y puede obtenerse en el mercado.

Dicho material, a fin de permitir su mayor resistencia tanto a temperaturas de por lo menos 50-60°C, como para garantizar su integridad química y estructural (en particular resistencia a la hidrólisis y la estabilidad al envejecimiento), está adicionada con agentes reticulantes adecuados, esto es que favorecen la reacción de reticulación, y por tanto

capaces de reaccionar con los grupos funcionales aún libres en el interior del poliuretano.

Estos agentes pueden ser por ejemplo isocianatos (3-5%) adecuadamente catalizados para aumentar la reactividad, por ejemplo mediante aminas.

5 En dicha fase preparatoria es también posible cubrir algunas zonas de la estructura con un proceso de fotoincisión en las zonas en que no deben ser recubiertas por la solución, por ejemplo las que son a continuación interesadas o cubiertas por la membrana 12, naturalmente a excepción de las zonas correspondientes a los bordes de la misma.

10 Se procede después al encolado de la membrana 12, ya tratada con puntos 13 de cola, a la capa de rozamiento 11 mediante una prensa en caliente (no ilustrada en las figuras).

Las siguientes fases (fig. 2) consisten en poner la capa de rozamiento 11 bajo la estructura 15 y verter (fig. 3) dicha solución o dispersión de polímero sobre la estructura 15.

15 Con una rasqueta se favorece la penetración del material a través de las tramas de la estructura 15.

El material, que está en estado en fluido, por efecto de la evaporación de la fase solvente deja depositado sobre la capa de rozamiento 11 y sobre la membrana 12 la fase sólida contenida en el mismo realizando la corona de sellado 14.

20 El conjunto de la capa de rozamiento 11, membrana 12 y corona de sellado 14, correspondiente a la fig.1, es tomada y secada.

Después de la realización de la corona 14 puede seguir una fase ulterior de calentamiento sustancialmente a 60-80°C para acelerar el reticulado.

Dicha fase de calentamiento puede ser alternativa o sumarse a la citada adición de isocianato (agente que favorece el reticulado).

25 Con dicha tecnología se pueden obtener películas de espesor deseado (del orden de 100-500 micrones), constante y reproducible.

Variando el número de hilos por centímetro de la estructura 15 se varía la cantidad de fluido que se depositará.

30 Se pueden prever diversas variantes de la invención con la aplicación previa sobre la capa de rozamiento 11 de promotores de adhesión, constituidos siempre por dispersiones o soluciones de polímeros poliuretánicos, pero de baja viscosidad (menos de 600 centipoises, según el método Brookfield) capaces de penetrar a través de las fibras del cuero.

En una alternativa se pueden utilizar poliuretanos en solución o dispersión con bajo

peso molecular.

En este caso es también oportuno prever una adición de un agente reticulante como isocianato catalizado, a fin de bloquear la reversibilidad del proceso por efecto de la temperatura.

5 Otra variante puede estar constituida por la aplicación de varias capas de dispersión de polímero para garantizar la continuidad de la película que creará la corona 14.

Se ha constatado en la práctica que se han alcanzado la finalidad y los objetivos propuestos por la presente invención.

10 Efectivamente, la suela presenta las características cualitativas de las suelas de cuero, en particular la transpiración, con las características cualitativas de las suelas de goma un material sintético, en particular la impermeabilidad, y todo ello con espesores reducidos por efecto de la realización del sellado perimetral mediante serigrafía.

15 El principio de la técnica serigráfica es conocido, pero en general es utilizado únicamente para la realización de los detalles decorativos sobre piezas de vestido y calzado.

20 Pruebas prácticas han demostrado que la técnica, adecuadamente adaptada como se ha descrito anteriormente, puede ser empleada de modo útil como medio de realización de un sellado perimetral de espesor muy reducido entre la membrana 12 y la capa de rozamiento 11.

La suela 10 puede por tanto ser realizada delgada y flexible y utilizada para cualquier tipo de calzado también para los calzados de señora.

Debe observarse que la misma está realizada sin particulares dificultades con un proceso productivo que es operativamente más flexible que el actual.

25 La invención así ideada es susceptible en numerosas modificaciones y variantes, todas las cuales están comprendidas dentro del alcance del concepto inventivo.

Además todos los detalles podrán ser sustituidos por otros elementos técnicamente equivalentes.

30 En la práctica, los materiales empleados, siempre compatibles con el uso contingente, así como las dimensiones, podrán ser cualesquiera, según las exigencias.

Las revelaciones descritas en la Solicitud de Patente Italiana N°PD2002A000264, desde la cual la presente Solicitud reivindica la prioridad, están aquí incorporadas por referencia.

REIVINDICACIONES

- 5 1. Suela (10) impermeabilizada y transpirante para calzados, caracterizada porque comprende una capa de rozamiento (11) de cuero, o material similar transpirante y permeable al agua, por lo menos parcialmente recubierto superiormente por la membrana (12) de material transpirante impermeable al agua perimetralmente unida a la capa de rozamiento (11) con una corona de sellado (14) serigrafiada.
- 10 2. Suela según la reivindicación 1, caracterizada porque dicha membrana (12) impermeable al agua y permeable al vapor está realizada en politetrafluoroetileno expandido.
- 15 3. Suela según la reivindicación 1, caracterizada porque dicha membrana (12) impermeable al agua y permeable al vapor está desprovista de cualquier tipo de soporte y realizada con espesores comprendidos entre 5 y 40 micrones.
4. Suela según la reivindicación 1, caracterizada porque dicha membrana (12) está perimetralmente separada del borde de dicha capa de rozamiento (11).
- 20 5. Suela según la reivindicación 1, caracterizada porque dicha membrana (12) está fijada sobre dicha capa de rozamiento (11) mediante adhesivo (13) por puntos.
6. Procedimiento para la fabricación de una suela según una o varias de las reivindicaciones anteriores, que consiste en:
- 25 - preparar una estructura (15) que comprende, por lo menos en correspondencia con las zonas perimetrales de la posición prevista de la membrana (12) sobre dicha capa de rozamiento (11), un tejido de malla suficientemente ancha tal que permita el paso de una solución o dispersión de polímero que tiene un residuo seco de por lo menos el 60% en peso adicionado con agentes endurecedores,
- 30 - disponer dicha membrana (12) sobre dicha capa de rozamiento (11),
- poner dicha capa de rozamiento (11) y dicha membrana (12) bajo dicha estructura (15), verter dicha solución o dispersión de polímero sobre dicha estructura (15)

y hacerla penetrar a través de las mallas de dicha estructura (15), formando por lo menos una capa de una corona (14) de sellado,

- 5 - tomar el conjunto constituido por la capa de rozamiento (11), membrana (12) y corona (14) y secarlo.

10 7. Procedimiento según la reivindicación 6, caracterizado porque dicha solución o dispersión de polímero que tiene un residuo seco de por lo menos 60% en peso es poliuretánica.

8. Procedimiento según las reivindicaciones 6 y 7, caracterizado porque dicha solución o dispersión de polímero poliuretánico que tiene un residuo seco de por lo menos 60% en peso está adicionada con agentes reticulantes.

15 9. Procedimiento según la reivindicación 8, caracterizado porque dichos agentes reticulantes son isocianatos catalizados.

20 10. Procedimiento según una o varias de las reivindicaciones 6 a 9, caracterizado porque comprende una fase de calentamiento, después de la realización de dicha corona (14), para acelerar en el reticulado de dicha solución o dispersión de polímero.

11. Procedimiento según la reivindicación 10, caracterizado porque dicho calentamiento se efectúa sustancialmente a 60-80°C.

25 12. Procedimiento según la reivindicación 6, que consiste en la aplicación preventiva sobre dicha capa de rozamiento (11) de promotores de adhesión constituidos por dispersiones o soluciones de polímeros poliuretánicos de baja viscosidad, es decir capaces de penetrar a través de las fibras de cuero.

30 13. Procedimiento según la reivindicación 6, que consiste en la aplicación preventiva sobre dicha capa de rozamiento (11) de poliuretanos de bajo peso molecular en solución o dispersión.

14. Procedimiento según la reivindicación 13, caracterizado porque dichos

poliuretanos de bajo peso molecular en solución o dispersión están adicionados con agentes reticulantes.

5 15. Procedimiento según la reivindicación 14, caracterizado porque dichos agentes reticulantes son isocianatos catalizados.

10 16. Procedimiento según la reivindicación 6, que, antes de la disposición de dicha membrana (12) sobre dicha estructura (15), consiste en cubrir con un proceso de fotoincisión las zonas de dicha estructura (15) que no deben ser recubiertas por dicha solución o dispersión de polímero.

15 17. Procedimiento según la reivindicación 16, caracterizado porque dichas zonas cubiertas con fotoincisión son las que a continuación son cubiertas por dicha membrana (12), a excepción de las zonas correspondientes a los bordes de la misma.

20 18. Procedimiento según la reivindicación 6, caracterizado porque la disposición de dicha membrana (12) sobre dicha capa de rozamiento (11) comprende también el encolado de la misma membrana (12), previamente tratada con puntos (13) de cola a dicha capa de rozamiento (11).

 19. Procedimiento según la reivindicación 18, caracterizado porque dicho encolado se efectúa mediante una prensa en caliente.

25 20. Procedimiento según la reivindicación 6, caracterizado porque la penetración de dicha solución o dispersión de polímero a través de la trama de dicha estructura (15) está favorecida por el empleo de una rasqueta.

FORMATO DE DIGITALIZACION
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6 DISQUETES		
7 SOBRE DE MANILA		
8 SOBRE BLANCO TAMAÑO CARTA		
9 SOBRE BLANCO TAMAÑO OFICIO	1	✓
10 OTROS:		

Observaciones:

arte final

76
1

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT : 800176089-2

SUPERINDUSTRIA Y COMERCIO
Radicacion : 05044525 00000000 Folios: 76
Fecha (MM): 2005-05-10 16:59:41
Tramite : 011 PCT-PATENT 379 FASE NACI 411 PRESENTA
Dependencia: 2020 DIVISION DE NUEVAS CREACIONES

RECIBO OFICIAL DE CAJA : 05 - 31,623
FECHA : MAYO 2 DE 2005

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PAGO	Vr. PAGO
CAVELIER ABOGADOS	CONSIGNACION	BANCO POPULAR	050-00110-6	40114850	02/05/2005	33,080,200.00

***** CONCEPTO *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-01	SOLICITUDES	
		1 TRAMITES DE SOL. DE PATENTE DE IN	443,000.00
		TOTAL :	443,000.00

SON: CUATROCIENTOS CUARENTA Y TRES MIL PESOS

RESPONSABLE : 

RECIBO DE CAJA APLICADO AL EXPEDIENTE No. _____

Cdo 1337A-891-002-6

77

SUPERINDUSTRIA Y COMERCIO
Radicación : 05044525 00000000
Fecha (AMD): 2005-05-10 16:59:41
Trámite : 011 PCT-PATENT 379 FASE INCI 411 PRESENTAC
Dependencia: 2020 DIVISION DE NUEVAS CREACIONES

REQUISITOS NECESARIOS PARA PRESENTACION DEL
TRAMITE

	USUARIO	RADICADOR
PATENTE DE INVENCIÓN ✓		
MODELO DE UTILIDAD	()	()
- Indicación de que se solicita la concesión de una patente.	()	()
- Datos de identificación del solicitante o de la persona que se presenta la solicitud.	()	()
- Descripción de la invención.	()	()
- Dibujos de ser estos pertinentes. ✓	()	()
- Comprobante de Pago de las tasas establecidas.	()	()
COMPLETA ()		
INCOMPLETA ()		
DISEÑO INDUSTRIAL ()		
- Indicación de que se solicita el registro de Diseño Industrial	()	()
- Datos de identificación del solicitante o de la persona que presenta la solicitud.	()	()
- Representación gráfica o fotográfica del Diseño Industrial o muestra del Material que Incorpora el diseño.	()	()
- Comprobante de pago de las tasas establecidas	()	()
COMPLETA ()		
INCOMPLETA ()		
ESQUEMA DE TRAZADO ()		
- Indicación de que solicita el registro de un Esquema de trazado.	()	()
- Datos de identificación del solicitante o de la persona que presenta La solicitud.	()	()
- Representación gráfica del esquema de trazado	()	()
- Comprobante de pago de las tasas establecidas.	()	()
COMPLETA ()		
INCOMPLETA ()		

Firma Dependencia: Claudia M Neva

2020
Bogotá DC

Folio

28

Doctor
EMILIO FERRERO
Apoderado
GEOX S.P.A.

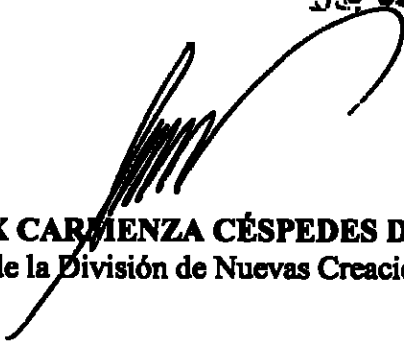
REFERENCIA:

Radicación No.	05-44525
Solicitud Internacional	PCT/EP2003/011307
Fecha inicio fase nacional	16-05-2005
Trámite	011
Evento	379
Actuación	416
Oficio No.	534
Folios	001

Teniendo en cuenta que la solicitud de privilegio de patente que se tramita bajo el expediente indicado en la referencia, reúne los requisitos de forma establecidos en la Decisión 486 de la Comisión de la Comunidad Andina, el Tratado de Cooperación en Materia de Patentes (PCT), el Reglamento y la Circular Única de la Superintendencia de Industria y Comercio, se envía el extracto de la solicitud a la Oficina de Comunicaciones para efecto de su publicación en la Gaceta de Propiedad Industrial.

Cúmplase
Dado en Bogotá DC

23 JUN. 2005


ALIX CARRIENZA CÉSPEDES DE VERGEL
Jefe de la División de Nuevas Creaciones

202030