

Search history

Search PN=(wo2016168488) (Results 1)

1:

Search [SP]: 1. an apparatus for forming a high-definition lithographic image on an exterior surface of a metallic container, comprising: a first plate cylindera first printing plate attached to a circumference of the first plate cylindera first inker operable to transfer a first ink to the first printing platea second plate cylindera second printing plate attached to a circumference of the second plate cylinder, the second printing plate including a relief areaa second inker operable to transfer a second ink to the second printing platea blanket cylindera flexible transfer plate comprised of a saturated chain of polymethylene affixed to the blanket cylinder, the flexible transfer plate including a first image that aligns with the relief area of the second printing plate, wherein the blanket cylinder is operable to move the flexible transfer plate into contact with the first and second printing plates such that the first ink is transferred from the first printing plate to the first image and the second ink is transferred from the second printing plate to a portion of the flexible transfer plate anda support cylinder operable to move the metallic container into contact with the flexible transfer plate affixed to the blanket cylinder, wherein the first and second inks are transferred from the flexible transfer plate to the exterior surface of the metallic container to form the high-definition lithographic image.2. the apparatus of claim 1, wherein at least some of a material of the flexible transfer plate has been removed to form the first image.3. the apparatus of claim 1, wherein the first ink comprises at least one of a thermochromic ink, a photochromic ink, a scented thermochromic ink, a fluorescent ink, a uv ink, a black light ink, an infrared ink, a phosphorescent ink, a pressure sensitive ink, a tactile ink, a thermo-tactile ink, a leuco dye, and a matte ink.4. the apparatus of claim 1, wherein the saturated chain of polymethylene is an ethylene propylene rubber.5. the apparatus of claim 1, wherein the saturated chain of polymethylene is an m-class rubber.6. the apparatus of claim 1, wherein the saturated chain of polymethylene is an ethylene propylene diene monomer.7. the apparatus of claim 1, wherein at least a portion of the first image has a depth that is lower than a plane defined by a face portion of the flexible transfer plate.8. a decorator to decorate an exterior surface of a plurality of metallic containers with different images, comprising: a first plate cylinder with a first printing plate which includes a first ink receiving region and a relief area that will not receive ink a first inker to transfer a first ink to the first ink receiving regiona second plate cylinder with a second printing plate which includes a second ink receiving regiona second inker to transfer a second ink to the second ink receiving regiona blanket cylinder rotationally aligned with the first and second plate cylindersa first transfer plate with a first image affixed to the blanket cylinder, the first transfer plate comprised of a saturated chain of polymethylene anda second transfer plate with a second image affixed to the blanket cylinder, wherein the relief area of the first printing plate aligns with the first and second images, and wherein the blanket cylinder is operable to rotate with respect to the first and second plate cylinders such that the first ink receiving region of the first printing plate transfers the first ink to a portion of each of the first and second transfer plates and the second ink receiving region of the second printing plate transfers the second ink to the first and second images, and wherein, as the blanket cylinder continues rotating, the first transfer plate contacts an exterior surface of a first metallic container which is decorated with the first ink and with the first image and the second transfer plate contacts an exterior surface of a second metallic container which is decorated with the first ink and with the second image.9. the decorator of claim 8, wherein at least some of a face portion of the first transfer plate is removed to form the first image.10. the decorator of claim 8, wherein at least a portion of the first image has a depth that is lower than a first plane defined by a face portion of the first transfer plate and no portion of the first image projects above the first plane.11. the decorator of claim 8, wherein the first image of the first transfer plate is surrounded by a relief area that will not receive ink from the first and second printing plates such that the first image formed on the first metallic container is surrounded by a non-inked area.12. the decorator of claim 8, further comprising a support cylinder to move the first and second metallic containers into contact with the first and second transfer plates.13. the decorator of claim 8, wherein the saturated chain of polymethylene of the first transfer plate is an m-class rubber.14. the decorator of claim 8, wherein the saturated chain of polymethylene of the first transfer plate is an ethylene propylene rubber.15. the decorator of claim 8, wherein the saturated chain of polymethylene of the first transfer plate is an ethylene propylene diene monomer.16. a decorator with transfer plates to decorate an exterior surface of a generally cylindrical container, comprising: a blanket cylindera first transfer plate affixed to the blanket cylinder, the first transfer plate including a first image with at least a portion of the first image having a depth that is lower than a first plane defined by a face portion of the first transfer plate and no portion of the first image projects above the first plane, wherein the first transfer plate is comprised of a saturated chain of polymethylenea first plate cylindera first printing plate interconnected to the first plate cylinder, wherein the first printing plate is operable to transfer a first ink to at least a portion of the first transfer platea second plate cylindera second printing plate interconnected to the second plate cylinder, the second printing plate including a second image, wherein the second printing plate is operable to transfer a second ink from the second image to the first transfer plate, and wherein the second printing plate does not transfer the second ink to the first image anda support element to move a first container into contact with the first transfer plate, wherein the first and second inks are transferred from the first transfer plate to an exterior surface of the first container to form the first and second images on the first container.17. the decorator of claim 16, wherein the saturated chain of polymethylene of the first transfer plate comprises at least one of: an ethylene propylene rubberan m-class rubber andan ethylene propylene diene monomer.18. the decorator of claim 16, wherein the first image on the first transfer plate is a negative comprising relief areas that will not receive the first ink from the first printing plate.19. the decorator of claim 16, further comprising a second transfer plate affixed to the blanket cylinder, the second transfer plate including a third image, wherein the first printing plate is operable to transfer the first ink to at least a portion of the second transfer plate and the second printing plate is operable to transfer the second ink from the second image to the second transfer plate, wherein the second printing plate does not transfer the second ink to the third image, and wherein the first and second inks are subsequently transferred from the second transfer plate to an exterior surface of a second container to form the second and third images on the second container.20. the decorator of claim 16, wherein the first image on the exterior surface of the first container is formed of the first ink and the second image on the exterior surface of the first container is formed of the second ink. (Results 0)

Search [SP]: cross-reference to related applications[0001] this application is a divisional application of and claims priority to u.s. patent application ser. no. 14/686,517, filed on apr. 14, 2015 and entitled "variable printing process using soft secondary plates and specialty inks," which is a continuation-in-part application and claims the benefit and priority of u.s. application ser. no. 14/301,018, filed jun. 10, 2014, entitled "printing process using soft photopolymer plates," which claims priority under 35 u.s.c. 119(e) to u.s. provisional patent application ser. no. 61/833,799, filed jun. 11, 2013 and entitled "printing process using soft photopolymer plates." each of these applications is incorporated herein in its entirety by reference.field of the invention[0002] the present invention relates to using soft secondary plates in a printing process for cylindrical substrates. more specifically, the present invention relates to a method and apparatus which use soft secondary plates made of novel materials to decorate the exterior surface of cylindrical metallic containers and provide product differentiation in a printing process.background[0003] metallic containers are frequently decorated with an image or indicia, such as a brand name, logo, product information, or design, using a lithographic printing process. in lithographic printing, one or more printing plates (or primary plates) with image regions are attached to a plate cylinder (or press cylinder) of a decorator. the image regions can include both ink receiving regions and areas that do not receive ink. an inker applies ink to the printing plates and the ink adheres to the ink receiving regions. usually each printing plate receives a particular color of ink from the inker. the decorator also has a blanket cylinder (also known as an offset cylinder, a printing cylinder, or a segment wheel). secondary plates (or secondary transfer plates or printing blankets) are attached to the blanket cylinder. decorators used in the metallic container industry typically have from 4 to 12 secondary plates on the blanket cylinder. as the plate cylinder and blanket cylinder are rotated in unison, each of the one or more printing plates contacts a secondary plate and transfers a particular color of ink to the secondary plate. when all of the printing plates have transferred their ink colors and images to the secondary plate, the final lithographic image is formed on the secondary plate. a cylindrical metallic container is then brought into rotational contact with one of the secondary plates of the blanket cylinder and the lithographic image is transferred from the secondary plate to the exterior surface of the cylindrical metallic container.[0004] lithographic printing methods are generally described in u.s. pat. nos. 3,766,851, 4,384,518, 6,550,389, and 6,899,998, each of which are incorporated herein by reference in their entireties. the methods described in these references generally only allow a single lithographic image to be produced from a single set of printing plates. thus, the methods described in these patents are only efficient for printing the same image onto a large number of cylindrical metallic containers. in order to print a different image on a plurality of cylindrical metallic containers, a new set of printing plates must be installed on the plate cylinder of the decorator, resulting in downtime and decreased efficiency of a production line. because only one image can be printed without changing the printing plates, it is economically challenging to produce small batches of decorated cylindrical metallic containers with different images. [0005] one example of providing multiple different images from a single set of printing plates is provided in u.s. pat. no. 5,181,471 to sillars, which is incorporated herein by reference in its entirety. sillars generally describes a printing system with engraved images formed in flexographic regions of secondary plates attached to the blanket cylinder.[0006] another method of providing multiple distinct images using a single set of printing plates is described in international patent publication no. wo 2014/008544 by treloar, which is incorporated herein by reference in its entirety. treloar generally describes a blanket cylinder with secondary plates that are adapted to have inked regions and non-inked regions. other methods of providing multiple distinct images in lithographic printing processes are described in international patent publication no. wo 2014/006517 by vilas boas et al. (vilas boas) and international patent publication no. wo 2014/128200 by

grahame et al. (grahame), each of which are incorporated herein by reference in their entireties. however, the lithographic images described by sillars, treloar, vilas boas, and grahame using these various techniques do not have sufficient detail to be considered a high quality, high-definition image. further, none of these patents or patent publications describes the use of specialty inks in the printing process or novel materials used for the secondary plates to create high image quality in a mass production process. the commercial metallic container industry requires high-definition printing in unique applications and requires distinct graphical elements formed by specialty inks that can efficiently be printed with high resolution and detail on the exterior surface of a cylindrical metallic container. these high-definition images and the use of specialty inks are necessary to differentiate products at the point of sale and to attract consumers.[0007] u.s. patent application publication 2014/0210201 to owen et al. (owen), which is incorporated by reference herein in its entirety, generally describes the use of thermochromic and photochromic inks to decorate beverage cans. however, owen teaches the use of ink jet printing to apply the inks to the cans which is generally a slow and non-economical process. in contrast, the commercial container industry requires an apparatus and method capable of decorating beverage containers at significant production speeds of at least several thousand cylindrical metallic containers per minute.[0008] accordingly, there is an unmet need for a high-definition lithographic printing process that allows multiple images to be printed on an exterior surface of a cylindrical metallic container from a single set of printing plates and secondary plates that uses specialty inks and/or improved plate materials without sacrificing production efficiency or image quality and detail.summary of the invention[0009] the present process uses soft secondary plates affixed to a blanket cylinder of a decorator to significantly enhance the image quality and detail of lithographic images printed on metallic containers. more specifically, in one embodiment of the present invention, the soft secondary plate is comprised of photopolymer material. an image is transferred to a face of the soft photopolymer plate by exposing the soft photopolymer material with light. the image can be transferred using a computer to plate process or a conventional plate exposure process. this results in a soft secondary plate which has relief areas that do not receive ink and hardened areas forming precise and detailed image areas that will receive ink. in another embodiment of the present invention, the soft secondary plate is comprised of a rubber material comprising a saturated chain of polymethylene or other related materials with similar physical properties. alternatively, certain pliable plastic materials may be used for the same purpose. images are formed in the rubber of the soft secondary plate by direct laser engraving or other methods known in the art. variable types and colors of inks are applied by inkers to one or more different portions of a printing plate to form a first image. the printing plate is then brought into rotational contact with the soft secondary plates and transfers the various types and colors of inks to the soft secondary plates. a container body is then moved into rotational contact with the soft secondary plates and the inks are transferred to the exterior surface of the container body. in some embodiments of the process, the soft secondary plates may also be etched or engraved on the face before, during, or after an image is formed thereon to form one or more recessed portions that do not receive ink. in other embodiments, a varnish may also be applied to one or more portions of the exterior surface of the container body by the soft secondary plates or by a separate varnishing unit. these and other advantages will be apparent from the disclosure of the invention(s) contained herein.[0010] in accordance with one aspect of the present invention, a novel method of using a soft secondary plate in a lithographic printing process to decorate an exterior surface of a metallic container is provided. this includes, but is not limited to, a method generally comprising: (1) forming a first image on a predetermined portion of a top or face portion of the soft secondary plate (2) removably affixing the soft secondary plate with the first image onto a blanket cylinder of a decorator (3) attaching a plurality of printing plates to a plate cylinder of the decorator (4) applying an ink from an inker to at least one of the plurality of printing plates (5) transferring at least some of the ink from the at least one of the plurality of printing plates to at least a portion of the soft secondary plate and (6) transferring the ink from the soft secondary plate to the exterior surface of the metallic container, wherein the metallic container is decorated. the soft secondary plate is comprised of one of a rubber comprising a saturated chain of polymethylene, a photopolymer material, and a pliable plastic material (Results 223)

Search (3) AND PD=(2014 OR 2003 OR 2012 OR 2013 OR 2002 OR 2005 OR 2011 OR 2004 OR 2008 OR 2009 OR 1994 OR 1995 OR 1996 OR 4: 1998 OR 2006 OR 2007) (Results 152)

Search [SP]: 1. a flexographic printing plate material comprising: a printing layer for engraving containing rubber a compressive layer a base fabric 5: layer provided between the printing layer for engraving and the compressive layer and a reinforcement layer. 2. the flexographic printing plate material according to claim 1, wherein the printing layer for engraving further comprises an inorganic porous substance having a specific surface area of greater than or equal to 40 m² and less than or equal to 1000 m² per 1 g of the rubber. 3. the flexographic printing plate material according to claim 1, wherein the compressive layer has a porosity of greater than or equal to 10 percent and less than or equal to 70 percent. 4. the flexographic printing plate material according to claim 1, wherein the printing layer for engraving has a hardness of greater than or equal to 40 and less than or equal to 85, in accordance with jis-a. 5. the flexographic printing plate material according to claim 1, wherein the plate material has a thickness of greater than or equal to 1.5 mm and less than or equal to 2.75 mm, a ratio of a thickness of the compressive layer to the thickness of the plate material is 10 percent or less, and a ratio of a thickness of the printing layer for engraving to the thickness of the plate material is greater than or equal to 22 percent and less than or equal to 65 percent. (Results 23)

Search (5) AND PD=(2014 OR 2009 OR 2012 OR 2004 OR 2006 OR 2010 OR 2005 OR 2007 OR 2008 OR 2003 OR 2015 OR 2000 OR 2002 OR 6: 1963 OR 1964 OR 1979 OR 1981) (Results 21)

1) Family number: 47422003 (US2012103216A)

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Title: MULTIPLE-LAYER FLAT STRUCTURE IN THE FORM OF A PRINTING BLANKET OR A PRINTING PLATE FOR FLEXOGRAPHIC AND LETTERPRESS PRINTING WITH LASER ENGRAVING

Abstract: The invention is directed to a multiple-layer flat structure (1) in the form of a printing blanket or a printing plate for flexographic and letterpress printing with: a printing layer (2) which is made from a polymeric material and is provided with laser engraving; at least one compressible layer (3); and, at least one strength-support layer (4); wherein the individual layers form an adhesive connection among one another. The multiple-layer flat structure (1) according to the invention is distinguished by the fact that the polymeric material of the printing layer (2) is a vulcanizate. Advantageous materials are proposed in this regard. The printing layer (2) expediently lies directly on a compressible layer (3). The compressible layer (3) is in turn in direct contact with a strength-support layer (4).

Classifications:

International (IPC 8-9): B41C1/00 B41C3/08 B41N1/12 B41N10/02 B41N10/04 (Advanced/Invention); B41N10/04 (Advanced/Non-invention); B41N1/00 B41N10/00 (Core/Invention)

CPC: B41N2210/02 B41N2210/04 B41N2210/14 B41N1/12 B41C1/05 B41N10/04

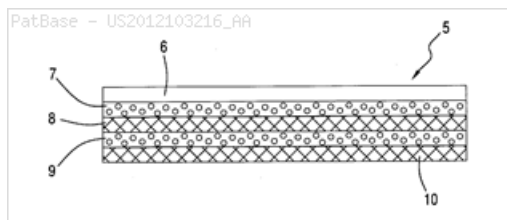
European: B41N1/12 B41N10/04 L41C1/05

US: 101/401.1 101/401.100P

JP F-Term: 2H114 2H114/AA01 2H114/AA15 2H114/AA27 2H114/AA28 2H114/AA29 2H114/BA10 2H114/CA02 2H114/CA03

2H114/CA10 2H114/DA46 2H114/DA47 2H114/DA48 2H114/DA50 2H114/DA52 2H114/DA56 2H114/DA60 2H114/DA61 2H114/DA62 2H114/DA72 2H114/DA73 2H114/EA02 2H114/EA08 2H114/GA12

JP F-Index: B41N1/12 B41N10/04



Family:

Publication number	Publication date	Application number	Application date
BRPI1014896 A2	20160419	BR2010PI14896	20100330
CN102414027 A	20120411	CN201080017982	20100330
DE102009003817 A1	20101028	DE200910003817	20090423
DE502010007116 D1	20140717	DE201050007116T	20100330
EP2421713 A1	20120229	EP20100711678	20100330
EP2421713 B1	20140604	EP20100711678	20100330
JP2012524676 T2	20121018	JP20120506427T	20100330
SI2421713 T1	20140829	SI20100030684T	20100330
US2012103216 AA	20120503	US20110278468	20111021
WO10121887 A1	20101028	WO2010EP54168	20100330

Priority:

DE200910003817 20090423 EP20100711678 20100330 WO2010EP54168 20100330

Probable Assignee: CONTITECH ELASTOMER BESCHICHTUNGEN GMBH**Assignee(s):** (std): CONTITECH ELASTOMER BESCH GMBH ; FUELLGRAF STEFAN ; KNISEL CLEMENS**Assignee(s):** CONTITECH ELASTOMER BESCHICHTUNGEN GMBH**Inventor(s):** (std): CLEMENS KNISEL ; FUELLGRAF STEFAN ; KNISEL CLEMENS ; STEFAN FUELLGRAF ; FULLGRAF STEFAN**Agent(s):** FINGER KARSTEN; WIDJAJA WIRA**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**2) Family number: 43970063 (US2009277561A)**

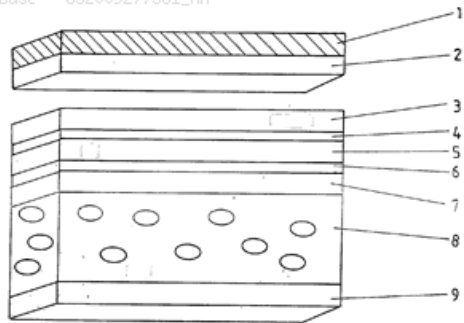
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Title: PRESSURE-SENSITIVE ADHESIVE TAPES FOR BONDING PRINTING PLATES AND METHODS OF PROVIDING THEM**Abstract:** The invention relates to the use of a pressure-sensitive adhesive comprising at least one resin-polymer blend of at least 50 percent by weight of one or more block copolymers comprising polymer blocks based on vinylaromatics and comprising polymer blocks based on 1,3-dienes and not more than 50 percent by weight of at least one tackifier resin for an adhesive tape for bonding flexible printing plates to printing cylinders or printing sleeves.**Classifications:****International (IPC 8-9):** B32B37/12 B32B5/04 B32B7/12 B41F27/06 B41F27/14 B41N10/00 B41N6/00 B41N6/02 C09J125/10 C09J153/02 C09J157/00 C09J7/02 (Advanced/Invention);

B32B37/12 B32B5/04 B32B7/12 B41F27/00 B41N10/00 B41N6/00 C09J125/00 C09J153/00 C09J157/00 C09J7/02 (Core/Invention)

CPC: B32B27/065 B32B27/36 B32B2255/10 B32B2255/26 B32B2266/025 B32B2305/022 B32B2405/00 C09J2201/128 C09J2400/243 C09J2453/00 C09J2493/00 C09J2499/00 Y10T156/10 B32B5/145 B32B5/147 B32B5/18 B32B7/12 B32B27/08 B32B27/10 B32B27/16 B32B27/304 B32B27/32 B32B29/007 B32B2255/12 B32B2266/0235 B32B2266/0278 B32B2307/308 B32B2307/31 B32B2307/51 B32B2307/518 Y10T428/249983 C09J7/29 C09J7/387 B41N6/02**European:** B32B27/06F B32B27/36 B41N6/02 C09J7/02F2F C09J7/02K9F L32B250/02 L32B255/10 L32B255/102 L32B255/26 L32B266/02B3 L32B305/02B L32B405/00 M09J201/128 M09J400/24S M09J453/00 M09J493/00 M09J499/00**US:** 156/60 156/60P 428/317.3 428/317.300S**JP F-Term:** 2C020 2H114 2H114/AA01 2H114/CA00 2H114/DA48 2H114/DA64 2H114/EA06 2H114/FA14 4J004 4J004/AA02 4J004/AA05 4J004/AA06 4J004/AB01 4J004/CA06 4J004/CB03 4J004/CC03 4J004/EA05 4J004/FA08 4J040 4J040/CA03 4J040/CA08 4J040/CA11 4J040/DM01 4J040/JA09 4J040/JB09 4J040/MA10 4J040/PA42**JP F-Index:** B41F27/06 B41N10/00 B41N6/00 B41N6/02 C09J125/10 C09J153/02 C09J157/00 C09J7/02/Z C09J7/25 C09J7/29 C09J7/38

PatBase - US2009277561_AA

**Family:**

Publication number	Publication date	Application number	Application date
CA2663208 AA	20091109	CA20092663208	20090417
CN101638561 A	20100203	CN200910139182	20090511
DE102008023741 A1	20091112	DE200810023741	20080515
EP2130885 A1	20091209	EP20090158444	20090422
JP2009270110 A2	20091119	JP20090113110	20090508
US2009277561 AA	20091112	US20090434707	20090504

Priority:

DE200810023021 20080509 DE200810023741 20080515

Probable Assignee: TESA SE**Assignee(s):** (std): TESA SE ; TESA SE DE**Inventor(s):** (std): ELLRINGMANN KAI DR ; KRAWINKEL THORSTEN DR ; THORSTEN KRAWINKEL ; RING CHRISTIAN ; KRAWINKEL THORSTEN ; KAI ELLRINGMANN ; JOCHEN FIENCKE ; FIENCKE JOCHEN ; ELLRINGMANN KAI ; CHRISTIAN RING**Agent(s):** NORRIS MCLAUGHLIN AND MARCUS PA**Designated states:** AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR**3) Family number: 51961156 (US2012240802A)**

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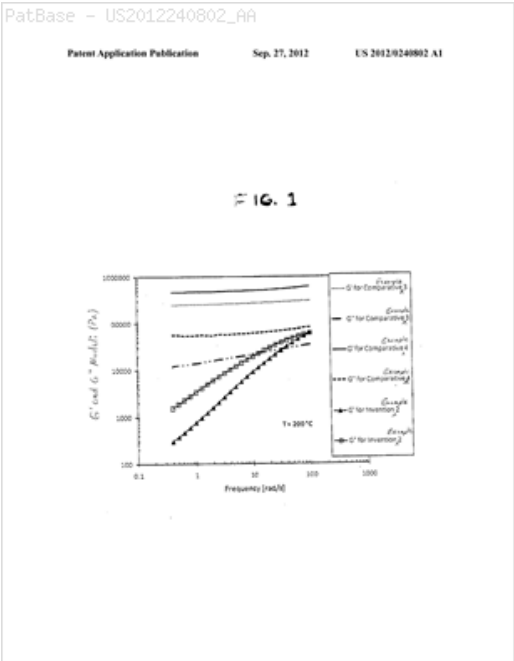
Title: LASER-ENGRAVEABLE FLEXOGRAPHIC PRINTING PRECURSORS**Abstract:** A laser-engrable flexographic printing precursor or other patternable material can be laser-engraved to provide a relief image. The relief image is formed in an elastomeric, relief-forming, laser-engrable layer comprising a thermoplastic elastomeric nanocrystalline polyolefin that is melt processable. The laser-engrable composition can be readily recycled and reformed into another flexographic printing plate precursor.**Classifications:****International (IPC 8-9):** B29C35/08 B32B3/00 B41C1/05 B41F33/00 B41N1/12 B82Y30/00 C08F210/00 C08F210/02 C08F210/06 C08F210/08 C08F210/14 C08L101/00 C08L23/00

C08L23/08 (Advanced/Invention);

B82Y30/00 (Advanced/Non-invention)

CPC: Y10T428/24479 B41C1/05 B41N1/12 B82Y30/00 C08L23/0815 C08L101/00**European:** B41C1/05 B41N1/12 B82Y30/00 C08L23/08A1 M08L101/00 M08L23/08A1

US: 101/483 264/400 425/174.4 428/156 524/570 526/348
526/348.2 526/348.6 526/351 526/352 977/742



Family:

Publication number	Publication date	Application number	Application date
CN103547452 A	20140129	CN201280024821	20120308
CN103547452 B	20150513	CN201280024821	20120308
DE602012009765 D1	20151001	DE201260009765T	20120308
EP2688746 A1	20140129	EP20120712455	20120308
EP2688746 B1	20150819	EP20120712455	20120308
US2012240802 AA	20120927	US20110053700	20110322
WO12128953 A1	20120927	WO2012US28161	20120308

Priority:

US20110053700 20110322 EP20120712455 20120308 WO2012US28161 20120308

Probable Assignee: EASTMAN KODAK CO

Assignee(s): (std): EASTMAN KODAK CO ; FRANKLIN LINDA M ; LANDRY COLTRAIN CHRISTINE JOANNE ; LANDRY COLTRAIN CHRISTINE J

Assignee(s): WILMINGTON TRUST NATIONAL ASSOCIATION AGENT AS ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AS ; PAKON INC ; EASTMAN KODAK CO ROCHESTER ; EASTMAN KODAK COMPANY ; BANK OF AMERICA NA AGENT AS ; BARCLAYS BANK PLC ADMINISTRATIVE AGENT AS ; CITICORP NORTH AMERICA INC AGENT AS

Inventor(s): (std): FRANKLIN LINDA M ; LANDRY COLTRAIN CHRISTINE JOANNE ; LANDRY COLTRAIN CHRISTINE J

Inventor(s): LANDRY COLTRAIN CHRISTINE JOANNE ROCHESTER ; FRANKLIN LINDA M ROCHESTER

Agent(s): VOSSIUS AND PARTNER PATENTANWALTE RECHTSANWALTE MBB; HOFMANN URSULA; VOSSIUS AND PARTNER PATENTANWALTE RECHTSANWALTE MBB; EASTMAN KODAK COMPANY

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

4) Family number: 15699157 (US6684782B) © PatBase

Title: Flexographic printing plate and raw plate therefor

Abstract: A low-cost flexographic printing plate which does not require a conventional tackiness tape or a tacky-elastic foam in mounting on a printing press and is capable of repeated uses and of high-accuracy printing. A flexographic printing plate and a raw plate therefor, comprising a photo-curable resin layer, a support layer with a barrier performance, an adhesive layer to stick the photo-curable resin layer and the support layer to each other, and an elastic layer, wherein the photo-curable resin layer and the elastic layer serve as the outermost layers, wherein the outer surface of the elastic layer has a rereleasable tacky surface.

Classifications:

International (IPC 8-9): B41N1/00 B41N1/06 G03F7/00

G03F7/11 (Advanced/Invention);

B41N1/00 G03F7/00 G03F7/11 (Core/Invention)

International (IPC 1-7): B32B27/00 B41N1/00 B41N1/06 B41N1/12

G03F7/00 G03F7/11 G03F7/42

CPC: B41N1/12 G03F7/11

European: B41N1/12 G03F7/11

US: 101/376 101/395

JP F-Term: 2H025 2H025/AA04 2H025/AA12 2H025/AA14 2H025/AB02 2H025/AC01 2H025/AD01 2H025/DA20 2H025/DA35 2H025/DA40 2H096 2H096/AA02 2H096/BA01 2H096/CA20 2H096/LA30 2H114 2H114/AA01 2H114/AA29 2H114/DA47 2H114/DA56 2H114/DA60 2H114/EA01 2H114/EA04 2H125 2H125/CA02 2H196 2H196/AA02 2H196/BA01 2H196/CA20 2H196/LA40 2H225 2H225/CA02

JP F-Index: B41N1/06 G03F7/00/502 G03F7/11/501

Assignee(s): (std): CONTITECH ELASTOMER BESCH GMBH ; FUELLGRAF STEFAN ; SENNE ARMIN
Assignee(s): CONTITECH ELASTOMER BESCHICHTUNGEN GMBH
Inventor(s): (std): FUELLGRAF STEFAN ; SENNE ARMIN
Agent(s): FINGER KARSTEN
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

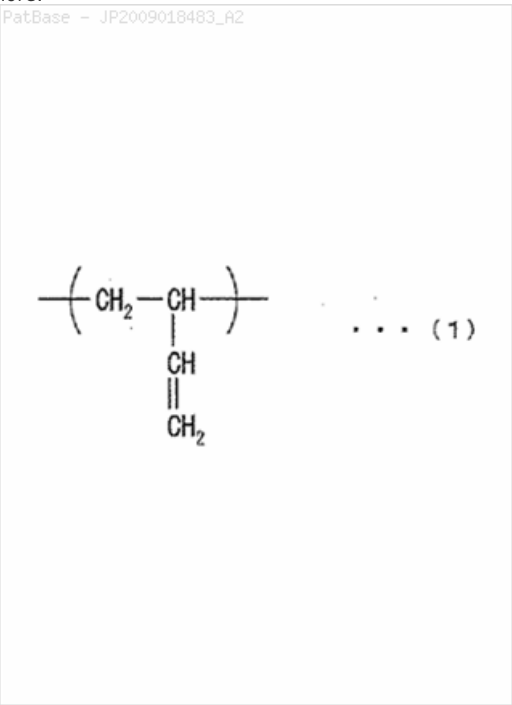
6) Family number: 42948439 (JP2009018483A)

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Title: RESIN COMPOSITION, ORIGINAL PRINTING PLATE AND MANUFACTURING METHOD OF ORIGINAL PRINTING PLATE

Abstract: PROBLEM TO BE SOLVED: To provide an original printing plate in which a deterioration in the shape of a laser-engraved part hardly arises and to provide a resin composition for forming such an original printing plate. SOLUTION: The resin composition for forming the original printing plate which can be laser-engraved comprises: a thermoplastic elastomer; an ethylenically unsaturated monomer; a photopolymerization initiator; and a polybutadiene that includes a skeleton represented by structural formula (1) in an amount of 50 percent or more.

Classifications:
International (ipc 8-9): B41C1/05 B41N1/12 (Advanced/Invention); B41C1/02 B41N1/12 (Core/Invention)
CPC: B41C1/05 B41N1/12
JP F-Term: 2H084 2H084/AA05 2H084/AA14 2H084/AA32 2H084/BB01 2H084/BB04 2H084/CC01 2H114 2H114/AA01 2H114/AA14 2H114/AA27 2H114/BA01 2H114/BA10 2H114/DA47 2H114/EA02 2H114/FA08 2H114/GA02
JP F-Index: B41C1/05 B41N1/12



Family:

Publication number	Publication date	Application number	Application date
JP2009018483 A2	20090129	JP20070182437	20070711

Priority:
 JP20070182437 20070711
Probable Assignee: TOKYO OHKA KOGYO CO LTD
Assignee(s): (std): TOKYO OHKA KOGYO CO LTD
Inventor(s): (std): NAKAZATO SHUNJI ; KUBO ATSUSHI ; HIRAI TAKAAKI

7) Family number: 42906476 (WO09016974A1)

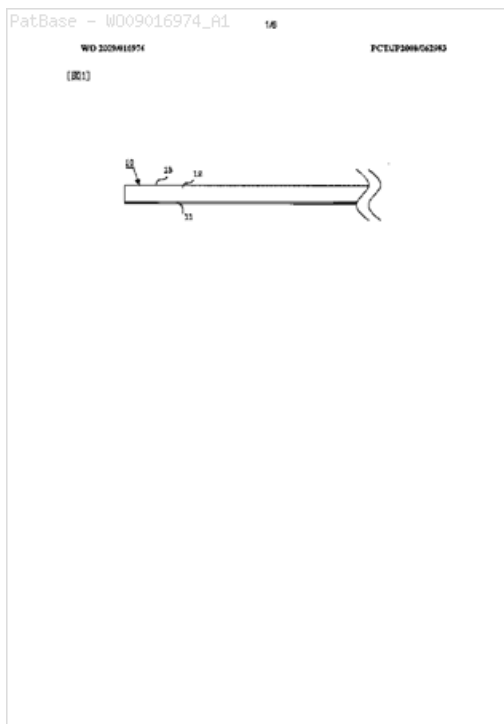
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Title: FLEXOGRAPHIC PRINTING PLATE, PROCESS FOR PRODUCING THE FLEXOGRAPHIC PRINTING PLATE, THIN FILM, AND PROCESS FOR PRODUCING LIQUID CRYSTAL DISPLAY ELEMENT

Abstract: This invention provides a flexographic printing plate characterized by an average plate surface roughness of 1 to 5 micrometres, preferably a thin-film printing flexographic printing plate, which, by virtue of the adoption of a photocured resin for constituting the flexographic printing plate, in thin-film printing of liquid crystal aligning films and the like, has an excellent transfer property without using a high-definition halftone dot surface and is excellent in NMP wetting stability, plate cleaning properties after printing, and durability, a process for producing the flexographic printing plate, a thin film, and a process for producing aliquid crystal display element.

Classifications:
International (ipc 8-9): B41C1/00 B41N1/12 G02F1/1337 G03F7/00 G03F7/20 H05K3/00 (Advanced/Invention); B41C1/00 B41N1/12 G02F1/13 G03F7/00 G03F7/20 (Core/Invention)
CPC: B41C1/05 B41N1/12
European: B41N1/12 L41C1/05
JP F-Term: 2H084 2H084/AA30 2H084/AA36 2H084/AE03 2H084/BB04 2H084/BB13 2H084/CC01 2H090 2H090/HB07 2H090/HC06 2H090/HC18 2H090/HC19 2H096 2H096/AA02 2H096/AA28 2H096/BA20 2H096/EA04 2H096/EA23 2H097 2H097/AA01 2H097/FA02 2H097/LA02 2H114 2H114/AA01 2H114/AA11 2H114/AA23 2H114/BA02 2H114/DA47 2H114/FA06 2H114/GA31 2H196 2H196/AA02 2H196/AA28 2H196/BA20

2H196/EA04 2H196/EA23 2H197 2H197/AB05 2H197/CA04
2H197/CE01 2H197/HA01 2H197/HA05 2H290 2H290/BE03
2H290/BE08 2H290/DA01
JP F-Index: B41C1/00 B41N1/12 G02F1/1337/520 G03F7/00/502
G03F7/20/511



Family:

Publication number	Publication date	Application number	Application date
JP2009034913 A2	20090219	JP20070201693	20070802
TW200920199 A	20090501	TW20080129201	20080801
WO09016974 A1	20090205	WO2008JP62983	20080718

Priority:

JP20070201693 20070802

Probable Assignee: NAKAN CORP

Assignee(s): (std): BAE HONGGI ; KAWAMOTO TADASHI ; NAKAJIMA YUICHI ; NAKAN CORP ; ODAJIMA TAKASHI

Inventor(s): (std): ODAJIMA TAKASHI ; NAKAJIMA YUICHI ; KAWAMOTO TADASHI ; BE KOUKI ; BAE HONGGI

Agent(s): MATSUMOTO YOSHIKAZU

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

8) Family number: 50792501 (US2012067236A)

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Title: RESIN COMPOSITION FOR LASER ENGRAVING, RELIEF PRINTING PLATE PRECURSOR FOR LASER ENGRAVING AND PROCESS FOR PRODUCING SAME, AND RELIEF PRINTING PLATE AND PROCESS FOR MAKING SAME

Abstract: A resin composition is provided that includes (Component A) a filler having an ethylenically unsaturated group, (Component B) a polymerizable compound having an ethylenically unsaturated group, and (Component C) a polymerization initiator. There are also provided a relief printing plate precursor, a process for producing a relief printing plate precursor that includes a layer formation step of forming a relief-forming layer and a crosslinking step of thermally crosslinking the relief-forming layer, and a process for making a relief printing plate that includes an engraving step of laser-engraving the crosslinked relief-forming layer so as to form a relief layer.

Classifications:

International (IPC 8-9): B05D3/06 B05D3/10 B41C1/05 B41N1/06 B41N1/12 C08F2/44 C08F230/08 C08F290/12 C08F292/00 C08J3/28 C08J7/04 C08K3/04 C08K3/22 C08K3/34 C08K3/36 C08L39/04 (Advanced/Invention)

CPC: C08J3/242 C08J2333/06 B41C1/05 C08J2329/14 C08K3/04 C08K3/34 C08K3/36 C08K7/18 C08K9/04 C09D4/00 B41N1/12

European: B41C1/05 C08J3/28 C08K3/04 C08K3/34 C08K3/36 C08K7/18 C08K9/04 M08J329/14

US: 101/395 427/387 427/387S 427/510 427/510S 427/515 427/515S 427/555 427/555S 522/117 522/117S 522/121 522/121S 522/172 522/172S 524/430 524/430S 524/431 524/431S 524/432 524/432S 524/433 524/433S 524/449 524/449S 524/530 524/530S 526/279 526/279S

JP F-Term: 2H084 2H084/AA05 2H084/AA32 2H084/AE05 2H084/BB04 2H084/BB05 2H084/CC01 2H114 2H114/AA01 2H114/AA27 2H114/BA10 2H114/DA03 2H114/DA15 2H114/DA25 2H114/DA51 2H114/DA75 2H114/DA76 2H114/EA02 2H114/EA06 2H114/EA08 2H114/EA10 2H114/FA10 4J011 4J011/PA03 4J011/PA13 4J011/PA16 4J011/PA68 4J011/PA69 4J011/PB06 4J011/PB19 4J011/PB23 4J011/PC02 4J011/QA03 4J011/QA07 4J011/QA09 4J011/QA15 4J011/QA34 4J011/QB03 4J011/QB14 4J011/QB16 4J011/TA04 4J011/UA02 4J011/VA01 4J011/WA01 4J026 4J026/AA76 4J026/AB44 4J026/AC00 4J026/BA30 4J026/BA43 4J026/BB01 4J127 4J127/AA03 4J127/AA04 4J127/BA14/1 4J127/BA16/1 4J127/BB02/1 4J127/BB04/1 4J127/BB08/1 4J127/BB10/1 4J127/BB22/1 4J127/BC02/1 4J127/BC03/1 4J127/BC15/1 4J127/BD06/1 4J127/BD10/1 4J127/BE11/1 4J127/BE11/X 4J127/BE31/1 4J127/BE31/Y 4J127/BF67/1 4J127/BF67/X 4J127/BG10/1 4J127/BG10/Y 4J127/BG17/1 4J127/BG17/X 4J127/BG17/Y 4J127/BG30/1 4J127/BG30/X 4J127/BG31/1 4J127/BG31/X 4J127/CB15/1 4J127/CB15/2 4J127/CB28/1 4J127/CC03/1 4J127/CC04/2 4J127/CC11/1 4J127/CC12/1 4J127/CC16/2 4J127/CC22/1 4J127/CC29/1 4J127/DA02 4J127/DA12 4J127/DA45 4J127/DA66 4J127/EA28 4J127/FA00 4J127/FA01

JP F-Index: B41C1/05 B41N1/12 C08F2/44/A C08F2/44/Z C08F290/12 C08F292/00

Family:

Publication number	Publication date	Application number	Application date
JP2012066415 A2	20120405	JP20100211381	20100921

JP5492722 B2	20140514	JP20100211381	20100921
US2012067236 AA	20120322	US20110238706	20110921

Priority:

JP20100211381 20100921

Probable Assignee: FUJIFILM HOLDINGS CORP

Assignee(s): (std): FUJIFILM CORP ; FUJIFILM HOLDINGS CORP ; YAMAMOTO HISAO

Inventor(s): (std): YAMAMOTO HISAO ; YAMAMOTO OSAO

Agent(s): NOGUCHI YASUHIRO

9) Family number: 33994602 (US2006281024A)

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Title: PRINTING ELEMENT WITH AN INTEGRAL PRINTING SURFACE

Abstract: A relief image printing element with an integral imageable printing surface and a method of preparing the relief image printing element are described. The relief image printing element comprises a dimensionally stable base layer; a floor layer comprised of a cured polymer selected from the group consisting of photopolymers, and polymers with a resilience of at least 40 percent when cured; and at least one layer of an imageable material. Most preferably, the floor layer created by curing the layer through the top of the printing element by face exposure. The printing element may also contain a compressible layer between the base layer and the floor layer.

Classifications:

International (IPC 8-9): B41C1/05 B41C1/08 B41N1/12 B41N1/24 B41N6/00 G03C1/00 G03F1/00 G03F7/00 G03F7/004 G03F7/095 G03F7/11 G03F7/20 G03F7/24 G03F7/26

G03F7/38 (Advanced/Invention);

B41C1/02 B41N1/12 G03C1/00 G03F1/00 G03F7/00 G03F7/004 G03F7/095 G03F7/11 G03F7/20 G03F7/24 G03F7/38 (Core/Invention) **CPC:** G03F7/11 G03F7/24

European: G03F7/11 G03F7/24

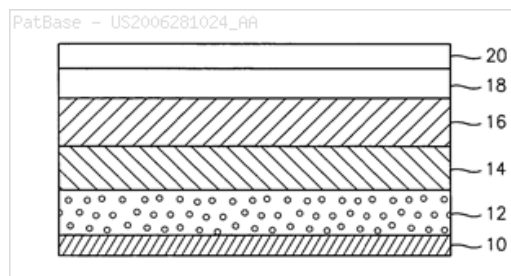
US: 430/138 430/270.1 430/270.100 430/273.1 430/306 430/306P 430/329 705/7

JP F-Term: 2H025 2H025/AA12 2H025/AB02 2H025/AC01

2H025/AC08 2H025/AD01 2H025/AD03 2H025/BC13 2H025/BC33 2H025/CA05 2H025/CB11 2H025/CC01 2H025/CC08 2H025/DA13

2H025/DA40 2H025/EA04 2H025/FA01 2H025/FA06 2H025/FA10 2H025/FA15 2H025/FA21 2H025/FA29 2H025/FA30 2H084 2H084/AA05 2H084/AA30 2H084/AA32 2H084/AE10 2H084/BB04 2H084/CC01 2H096 2H096/AA02 2H096/BA05 2H096/CA05 2H096/CA12 2H096/DA02 2H096/EA04 2H096/EA14 2H096/EA23 2H096/GA01 2H096/GA43 2H096/HA01 2H096/HA03 2H096/KA04 2H096/KA06 2H096/KA13 2H114 2H114/AA01 2H114/AA23 2H114/AA27 2H114/AA28 2H114/AA29 2H114/AA30 2H114/BA01 2H114/BA10 2H114/DA41 2H114/DA47 2H114/DA55 2H114/DA56 2H114/DA59 2H114/DA75 2H114/EA02 2H114/FA02 2H114/FA10 2H125 2H125/AC32 2H125/AC33 2H125/AD05 2H125/AM10 2H125/AM49 2H125/AM70 2H125/AN02 2H125/AN23 2H125/AN34 2H125/AN41 2H125/AN51 2H125/AN60 2H125/AP13 2H125/BA09 2H125/BA20 2H125/CA02 2H125/CC01 2H125/CC13 2H125/CD16 2H125/CD17 2H125/DA12 2H125/DA21 2H125/DA33 2H125/EA23 2H196 2H196/AA02 2H196/BA05 2H196/CA05 2H196/CA12 2H196/DA02 2H196/EA04 2H196/EA14 2H196/EA23 2H196/GA01 2H196/GA43 2H196/HA01 2H196/HA03 2H196/KA04 2H196/KA06 2H196/KA13 2H225 2H225/AC32 2H225/AC33 2H225/AD05 2H225/AM10 2H225/AM49 2H225/AM70 2H225/AN02 2H225/AN23 2H225/AN34 2H225/AN41 2H225/AN51 2H225/AN60 2H225/AP13 2H225/BA09 2H225/BA20 2H225/CA02 2H225/CC01 2H225/CC13 2H225/DA02 2H225/DA13 2H225/EA23

JP F-Index: B41C1/05 B41N1/12 B41N6/00 G03F7/00/502 G03F7/004/501 G03F7/095 G03F7/38/501



Family:

Publication number	Publication date	Application number	Application date
CN101185023 A	20080521	CN200680018568	20060321
CN101185023 B	20120627	CN200680018568	20060321
EP1889125 A2	20080220	EP20060739063	20060321
EP1889125 A4	20101006	EP20060739063	20060321
JP2008545564 T2	20081218	JP20080515687T	20060321
JP4933539 B2	20120516	JP20080515687T	20060321
TW200709934 A	20070316	TW20060120008	20060606
TWI309201 B	20090501	TW20060120008	20060606
US2006281024 AA	20061214	US20050150088	20050609
US2009226845 AA	20090910	US20090469721	20090521
US7947427 BB	20110524	US20090469721	20090521
WO06135465 A2	20061221	WO2006US10126	20060321
WO06135465 A3	20070503	WO2006US10126	20060321

Priority:

US20050150088 20050609

WO2006US10126 20060321

US20090469721 20090521

Probable Assignee: MACDERMID PRINTING SOLUTIONS LLC

Assignee(s): (std): BRYANT LAURIE A ; CHOI JONGHAN ; MACDERMID PRINTING SOLUTIONS ; VEST RYAN

Assignee(s): MACDERMID PRINTING SOLUTIONS L ; BARCLAYS BANK PLC SUCCESSOR COLLATERAL AGENT AS ; CREDIT SUISSE CAYMAN ISLANDS BRANCH FIRST LIEN COLLATERAL AGENT AG AS ; CREDIT SUISSE CAYMAN ISLANDS BRANCH SECOND LIEN COLLATERAL AGENT AG AS ; MACDERMID GRAPHICS SOLUTIONS LLC ; CREDIT SUISSE CAYMAN ISLANDS BRANCH AS COLLATERAL ; CREDIT SUISSE CAYMAN ISLANDS BRANCH COLLATERAL AGE ; CREDIT SUISSE CAYMAN ISLANDS BRANCH COLLATERAL AGENT AS ; MACDERMID PRINTING SOLUTIONS LLC

Inventor(s): (std): BRYANT LAURIE A ; CHOI JONGHAN ; JONGHAN CHOI ; RYAN VEST ; VEST RYAN

Inventor(s): BRYANT LAURIE

Agent(s): JENKINS PETER DAVID ; HIROTA KOICHI ; NAGARE YOSHIHIRO ; MATSUDA NAOKO ; JOHN L CORDANI CARMODY AND TORRANCE LLP ; ARTHUR G SCHAIER CARMODY AND TORRANCE LLP ; CARMODY AND TORRANCE LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: ROLLER ROTARY OFFSET PRINTING PRESS HAVING AT LEAST ONE COATING UNIT WITH A CHAMBER BLADE AND AN ANILOX ROLLER

Abstract: A roller rotary offset printing press has at least one coating unit and at least one printing unit. The coating unit comprises at least one coating unit and at least one printing unit. The coating unit comprises at least one chamber blade having a water-based coating and at least one anilox roller. The coating unit is arranged along a transport path of a print stock downstream of the at least one printing unit of the roller rotary offset printing press. At least one pair of two rollers is arranged that together form a coating gap. At least one roller of the at least one pair is in contact with the at least one anilox roller. The conveyed volume, at least on one part of the shell surface of the at least one anilox roller, is filled by an amount of coating, the mass of which, based on this part of the shell surface of the at least one anilox roller, minus a water portion, equals, on average, a maximum of 4 grams per square metre. A blanket having several layers can be placed or is placed on at least one roller of the coating unit.

Classifications:

International (IPC 8-9): B05C1/02 B05C11/04 B41F23/08 B41F3/34 B41F31/02 (Advanced/Invention); B41F23/00 (Core/Invention)

CPC: B41F23/08 B41F31/027

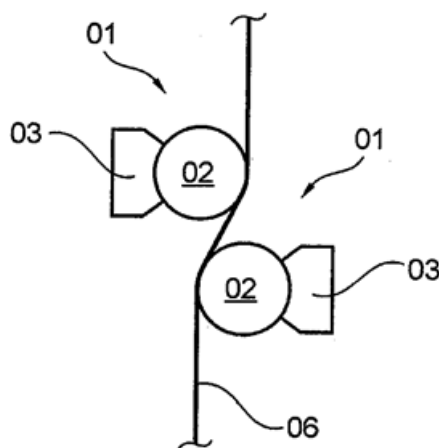
European: B41F23/08 B41F31/02E

US: 101/217 101/492 101/492S

JP F-Term: 2C020 4F040 4F040/AA22 4F040/AB04 4F040/AC02 4F040/BA28 4F040/CB34 4F042 4F042/AA22 4F042/AB00 4F042/DD07

JP F-Index: B05C1/02/102 B05C11/04 B41F23/08

PatBase - US2012118183_AA



Family:

Publication number	Publication date	Application number	Application date
CN102378689 A	20120314	CN201080015085	20100329
CN102378689 B	20140507	CN201080015085	20100329
DE102009002228 A1	20101014	DE200910002228	20090406
DE102009002228 B4	20150108	DE200910002228	20090406
EP2416964 A1	20120215	EP20100711229	20100329
EP2416964 B1	20180103	EP20100711229	20100329
JP2012522667 T2	20120927	JP20120503956T	20100329
JP5065539 B2	20121107	JP20120503956T	20100329
US2012118183 AA	20120517	US20100263090	20100329
WO10127913 A1	20101111	WO2010EP54077	20100329

Priority:

DE200910002228 20090406 WO2010EP54077 20100329

Probable Assignee: KOENIG AND BAUER AG

Assignee(s): (std): KOENIG AND BAUER AG ; MASUCH BERND KURT ; REDER WOLFGANG OTTO

Assignee(s): KOENIG AND BAUER AKTIENGESELLSCHAFT

Inventor(s): (std): KURT MASUCH BERND ; MASUCH BERND ; MASUCH BERND KURT ; OTTO REDER WOLFGANG ; REDER WOLFGANG ; REDER WOLFGANG OTTO

Agent(s): KOENIG AND BAUER AG; KOENIG AND BAUER AKTIENGESELLSCHAFT

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GU HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LASER-ENGRAVABLE FLEXOGRAPHIC PRINTING ELEMENT CONTAINING A CONDUCTIVE CARBON BLACK AND METHOD FOR PRODUCTION OF FLEXOGRAPHIC PRINTING FORMS

Abstract: In a laser-engravable flexographic printing element, the relief-forming layer comprises a conductivity carbon black having a specific surface area of at least 150 m²/g and a DBP number of at least 150 ml/100 g. Flexographic printing plates are produced by a process in which a printing relief is engraved into said flexographic printing element by means of a laser system.

Classifications:

International (IPC 8-9): B41C1/05 B41C1/14 B41M1/04 B41N1/06 B41N1/12 G03F7/00 G03F7/004 G03F7/20 (Advanced/Invention); B41C1/02 B41C1/14 B41M1/00 B41N1/00 B41N1/12 G03F7/00 G03F7/004 G03F7/20 (Core/Invention)

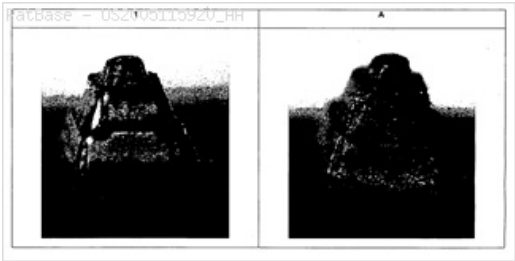
International (IPC 1-7): B32B1/08 B41C1/05 B41C1/14 B41M1/04 B41N1/06 B41N1/12 B44C1/22 C03C15/00 C03C25/68 C23F1/00 C23F3/00

CPC: Y10S430/145 Y10S430/146 B41C1/05 B41N1/12

European: B41C1/05 B41N1/12

US: 216/10 216/65 216/81 430/281.1 430/302 430/306 430/494

430/944 430/945
JP F-Term: 2H084 2H084/AA05 2H084/AE05 2H084/BB04
2H084/BB05 2H084/BB16 2H084/CC01 2H114 2H114/AA00
2H114/AA21 2H114/BA10 2H114/DA46 2H114/EA02 2H114/EA06
2H114/FA07
JP F-Index: B41C1/05 B41N1/12



Family:

Publication number	Publication date	Application number	Application date
AT396057 E	20080615	AT20040727267T	20040414
DE10318039 A1	20041104	DE20031018039	20030417
DE502004007228 D1	20080703	DE200450007228T	20040414
EP1613484 A1	20060111	EP20040727267	20040414
EP1613484 B1	20080521	EP20040727267	20040414
JP2006523552 T2	20061019	JP20060505125T	20040414
US2005115920 AA	20050602	US20040512193	20041117
US7223524 BB	20070529	US20040512193	20041117
WO04091927 A1	20041028	WO2004EP03954	20040414

Priority:

DE20031018039 20030417 WO2004EP03954 20040414

Probable Assignee: XSYS PRINT SOLUTIONS DEUTSCHLAND GMBH

Assignee(s): (std): BASF DRUCKSYSTEME GMBH ; FAULHABER HEINZ ; HILLER MARGIT ; STEBANI UWE ; NIMTZ FRITZ ; FLINT GROUP GERMANY GMBH ; TELSER THOMAS ; XSYS PRINT SOLUTIONS DEUTSCHLAND GMBH ; XSYS PRINT SOLUTIONS DEUTSCHLA

Inventor(s): (std): FAULHABER HEINZ ; HILLER MARGIT ; NIMTZ FRITZ ; NIMTZ FRITZ ; STEBANI UWE ; TELSER THOMAS

Agent(s): ISENBRUCK GUENTER ET AL; NIXON AND VANDERHYE PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

12) Family number: 13026769 (JP7309075A)

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Title: FLEXOGRAPHIC PLATE MATERIAL AND FLEXOGRAPHIC LAMINATING BASE MATERIAL

Abstract: PURPOSE: To provide a flexographic plate material which is comparatively light in weight, does not destroy power balance of a rotary press when it is attached to a plate cylinder, has excellent impact resilience, does not generate curling phenomenon, and has high printing precision; and a laminating base material. CONSTITUTION: A foaming layer 3 is provided on one face of an extendable base material 2 and an elastic material layer 4 is provided on other face. A plastic film 5 is layered on the surface of the elastic material layer 4. For the elastic material layer 4, a natural or synthetic rubber, or a rubber foaming body, further a synthetic resin foaming body are used.

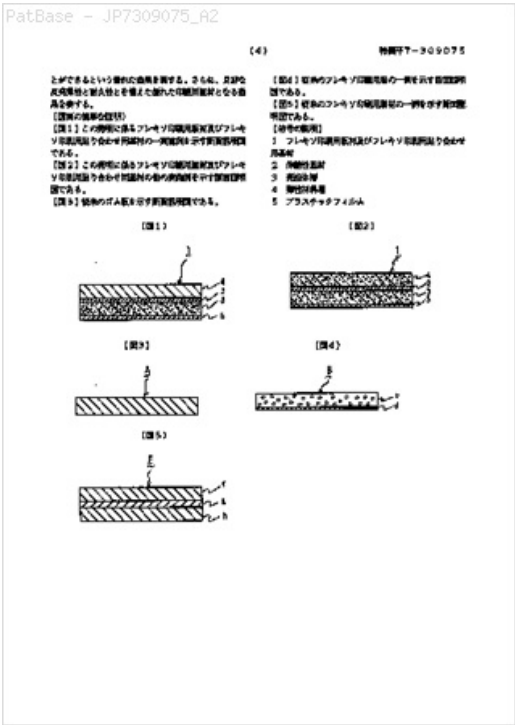
Classifications:

International (IPC 8-9): B41N1/12 B41N6/00 (Advanced/Invention); B41N1/12 B41N6/00 (Core/Invention)

International (IPC 1-7): B41N1/12 B41N6/00

JP F-Term: 2H114 2H114/AA01 2H114/AA14 2H114/AA27 2H114/AA29 2H114/DA46 2H114/DA48 2H114/DA49 2H114/DA59 2H114/DA60 2H114/DA61 2H114/DA73 2H114/DA76 2H114/EA01 2H114/EA02 2H114/EA04 2H114/FA01 2H114/FA02 2H114/FA14

JP F-Index: B41N1/12 B41N6/00



Family:

Publication number	Publication date	Application number	Application date
JP3476908 B2	20031210	JP19940129645	19940518

Priority:

JP19940129645 19940518

Probable Assignee: NIPPON DENSHI SEIKI KK**Assignee(s):** (std): NIPPON DENSHI SEIKI KK**Inventor(s):** (std): MARUNO MASANORI**13) Family number: 57939795 (US2016096390A)**

© PatBase

Title: FLEXOGRAPHIC PRINTING PLATE MATERIAL

Abstract: According to one embodiment, a flexographic printing plate material includes a printing layer for engraving containing rubber, a compressive layer, a base fabric layer provided between the printing layer for engraving and the compressive layer and a reinforcement layer. The plate material has a thickness of more than 2.75 mm and less than or equal to 7 mm. A ratio of a thickness of the printing layer for engraving to the thickness of the plate material is greater than or equal to 10 percent and less than or equal to 78 percent, and a ratio of a thickness of the compressive layer to the thickness of the plate material is greater than or equal to 6 percent and less than or equal to 78 percent.

Classifications:**International (IPC 8-9):** B41C1/05 B41N B41N1/00 B41N1/12

B41N1/22 G03F7/00 (Advanced/Invention);

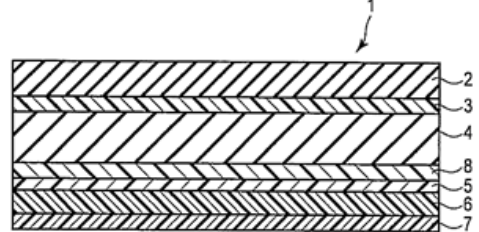
B41N1/22 (Advanced/Non-invention)

CPC: B41N1/12 G03F7/00 B41N1/22 B41N2210/04 B41N1/006 B41C1/05**US:** 101/395

JP F-Term: 2H084 2H084/AA05 2H084/AA32 2H084/AE05
2H084/BB05 2H084/BB12 2H084/BB13 2H096 2H114 2H114/AA01
2H114/AA15 2H114/AA30 2H114/BA10 2H114/DA03 2H114/DA08
2H114/DA11 2H114/DA35 2H114/DA46 2H114/EA02 2H114/FA02
2H114/FA06 2H196

JP F-Index: B41C1/05 B41N1/12 G03F7/00

PatBase - US2016096390_AA

**Family:**

Publication number	Publication date	Application number	Application date
BR112015031024 A2	20170725	BR20151131024	20130612
CN105283319 A	20160127	CN201380077353	20130612
CN105283319 B	20180928	CN201380077353	20130612
EP3009271 A1	20160420	EP20130886726	20130612
EP3009271 A4	20170510	EP20130886726	20130612
IL243078 A0	20160131	IL20130243078	20130612
IN11325DN2015 A	20160527	IN2015DN11325	20151211
JP2014199470 A1	20170223	JP20130558833T	20130612
JP5622947 B1	20141112	JP20130558833T	20130612
KR101827178 B1	20180322	KR20167000779	20130612
KR20160020496 A	20160223	KR20167000779	20130612
US2016096390 AA	20160407	US20150965780	20151210
WO14199470 A1	20141218	WO2013JP66254	20130612

Priority:

WO2013JP66254 20130612 US20150965780 20151210

Probable Assignee: KINYOSHA CO LTD**Assignee(s):** (std): KINYOSHA KK ; KINYOUSHA CO LTD**Assignee(s):** RYUTA TANAKA ; SHIGERU NAKANO ; YU ARIYOSHI ; KINYOSHA CO ; KINYOSHA CO LTD**Inventor(s):** (std): ARIYOSHI YU ; NAKANO SHIGERU ; TANAKA RYUTA**Inventor(s):** YU ARIYOSHI ; RYUTA TANAKA ; SHIGERU NAKANO**Agent(s):** HERRMANN UWE; KURATA MASATOSHI ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

14) Family number: 57939796 (US2016096389A)

© PatBase

Title: FLEXOGRAPHIC PRINTING PLATE MATERIAL

Abstract: According to one embodiment, a flexographic printing plate material includes a printing layer for engraving containing rubber, a compressive layer, a base fabric layer provided between the printing layer for engraving and the compressive layer, and a reinforcement layer.

Classifications:**International (IPC 8-9):** B41C1/05 B41N B41N1/00 B41N1/12

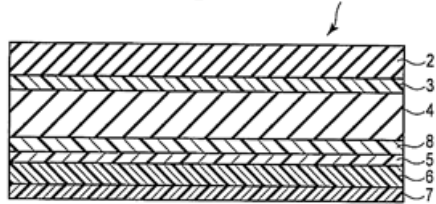
B41N1/22 G03F7/00 (Advanced/Invention);

B41N1/22 (Advanced/Non-invention)

CPC: B41N1/12 G03F7/00 B41N1/22 B41N2210/02 B41N2210/04 B41N2210/10 B41N1/006 B41C1/05**US:** 101/395

JP F-Term: 2H084 2H084/AA05 2H084/AA32 2H084/AE05
2H084/BB05 2H084/BB12 2H084/BB13 2H084/CC01 2H096 2H114
2H114/AA01 2H114/AA23 2H114/AA24 2H114/AA27 2H114/AA28
2H114/AA29 2H114/AA30 2H114/BA10 2H114/DA03 2H114/DA04
2H114/DA43 2H114/DA46 2H114/DA61 2H114/DA64 2H114/EA02
2H114/EA08 2H114/FA02 2H114/FA13 2H114/FA14 2H196

PatBase - US2016096389_AA



Family:

Publication number	Publication date	Application number	Application date
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CN105283318 A	20160127	CN201380077351	20130612
CN105283318 B	20180123	CN201380077351	20130612
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EP3009270 A4	20170510	EP20130886674	20130612
IL243077 A0	20160131	IL20130243077	20130612
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JP2014199469 A1	20170223	JP20130558834T	20130612
JP5622948 B1	20141112	JP20130558834T	20130612
KR101827177 B1	20180322	KR20167000778	20130612
KR20160019524 A	20160219	KR20167000778	20130612
US2016096389 AA	20160407	US20150965772	20151210
WO14199469 A1	20141218	WO2013JP66253	20130612

Priority:

WO2013JP66253 20130612 US20150965772 20151210

Probable Assignee: KINYOSHA CO LTD

Assignee(s): (std): KINYOSHA KK ; KINYOUSA CO LTD

Assignee(s): LTD KIN YOSHA ; RYUTA TANAKA ; SHIGERU NAKANO ; YU ARIYOSHI ; KINYOSHA CO ; KINYOSHA CO LTD

Inventor(s): (std): ARIYOSHI YU ; NAKANO SHIGERU ; TANAKA RYUTA

Inventor(s): YU ARIYOSHI ; RYUTA TANAKA ; SHIGERU NAKANO

Agent(s): BEHR WOLFGANG; KURATA MASATOSHI ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

15) Family number: 30765807 (JP4024136B)

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Title: LASER-ENGRAVED PRINTING ORIGINAL PLATE

Abstract: "PROBLEM TO BE SOLVED: To provide a flexographic original plate from which the residue can easily be removed and which has an excellent shape of an engraved relief, a small tack on a printing surface and a high carving speed by suppressing the generation of a residue when a relief image is created by directly engraving with laser. ?"SOLUTION: This printing original plate capable of being engraved with laser is composed of a photo-curable material of a photosensitive resin composition containing an inorganic porous particles. When the original plate is subjected to a thermogravimetric analysis (TGA) by heating at a heating rate of 10 Degrees "C/min in a nitrogen atmosphere, the weight reduction ratio of 50% appears in the range of ="150 Degrees "C and ="400 Degrees "C. ? "

Classifications:

International (ipc 8-9): B41N1/12 G03F7/00 G03F7/004

G03F7/36 (Advanced/Invention);

B41N1/12 G03F7/00 G03F7/004 G03F7/36 (Core/Invention)

International (ipc 1-7): B41N1/12 G03F7/00 G03F7/004 G03F7/36

JP F-Term: 2H025 2H025/AA03 2H025/AA04 2H025/AB02 2H025/AC08 2H025/AD03 2H025/BH01 2H025/BJ00 2H025/FA01 2H096 2H096/AA02 2H096/EA04 2H114 2H114/AA02 2H114/AA27 2H114/BA01 2H114/DA01 2H114/EA01 2H114/EA02 2H196 2H196/AA02 2H196/EA04

JP F-Index: B41N1/12 G03F7/00/502 G03F7/36

PatBase - JP4024136 B2



500 μm

Family:

Publication number	Publication date	Application number	Application date
JP2004174758 A2	20040624	JP20020341102	20021125
JP4024136 B2	20071219	JP20020341102	20021125

Priority:

JP20020341102 20021125

Probable Assignee: ASAHI KASEI CORP

Assignee(s): (std): ASAHI CHEMICAL CORP ; ASAHI KASEI CHEMICALS CORP ; ASAHI KASEI CORP

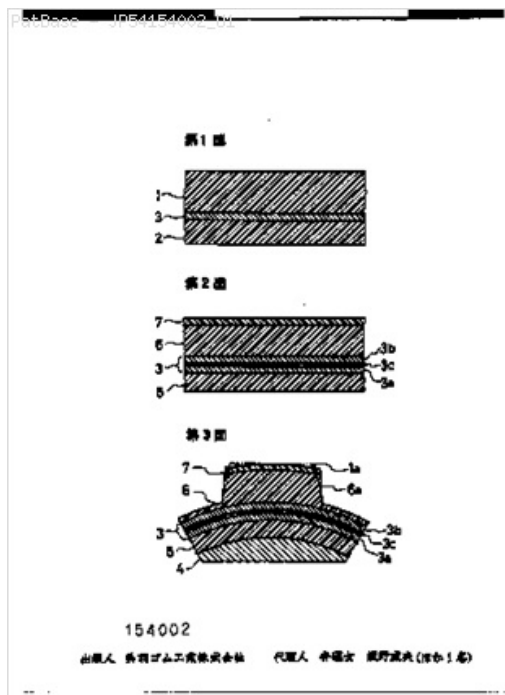
Inventor(s): (std): TOMEBA HIROSHI ; YAMADA HIROSHI

16) Family number: 38405834 (JP54154002 U1)

© PatBase

Classifications:

International (ipc 8-9): B41N1/12 B41N1/22 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
JP54154002 U1	19791026	JP19780051841U	19780418
JP56052064 Y2	19811204	JP19780051841U	19780418

Priority:

JP19780051841U 19780418

17) Family number: 22618872 (US3134138A)

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Title: METHOD AND APPARATUS FOR FORMING PLASTIC WEBS

Abstract: (Claim 1) 1. The process of manufacturing an open mesh from a plastic material comprising the steps of forming a solution of said plastic material, intimately mixing a nonsolvent fluid with said solution to cause the plastic material to form a soft mass, mechanically forming said mass under pressure into a web having a predetermined pattern of interconnected ribs and then curing said formed web.

Classifications:

International (IPC 8-9): B29C53/24 B41N1/12

B44F11/00 (Advanced/Invention);

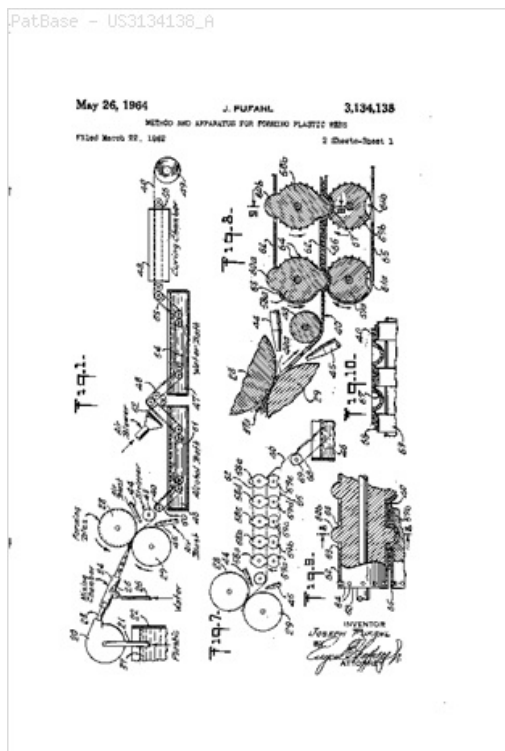
B29C53/00 B41N1/12 B44F11/00 (Core/Invention)

International (IPC 1-7): B29D31/00

CPC: B41N1/12 Y10S264/70 Y10S425/037 B44F11/00 B29C53/24

European: B29C53/24 B41N1/12 B44F11/00

US: 101/379 101/395 101/401.1 264/167 264/205 264/214 264/335 264/DIG.70 425/371 425/DIG.37



Family:

Publication number	Publication date	Application number	Application date
US3085507 A	19630416	US19620220351	19620824
US3134138 A	19640526	US19620181528	19620322

US19620220351 19620824

KUNETKA LAWRENCE S

JOSEPH PUFAHL ; KUNETKA LAWRENCE S

KUNETKA LAWRENCE S ; JOSEPH PUFAHL

PUFAHL JOSEPH

Classifications:

CPC: B41F17/08 B41M1/40 B41P2217/62 B41M1/22 B41N10/02
B41F7/16 B41N1/006 B41F7/08 B41F7/14 B41P2200/21 B41F7/02
B41F17/22 B41M1/04 B41M1/06 B41M1/20 B41M1/28 B41F17/002
B41F7/14

US: 1/1 101/142 101/395 101/450.1 101/453 101/457

JP F-Term: 2C036 2H113 2H133/AA04 2H113/AA05 2H113/BA03
 2H113/BA05 2H113/BB10 2H113/BB23 2H113/CA25 2H113/DA46 2H113/DA53 2H113/EA01 2H113/EA22 2H113/FA48 2H114
 2H114/AA23 2H114/BA02 2H114/BA10 2H114/DA52 2H114/FA02 2H114/GA27 2H113/AA01 2H113/BA01 2H113/BB24
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 2H114/DA73 2H114/EA08 2H114/EA10 2H114/FA13 3E062 3E062/AA04 3E062/AC03 3E062/JA04 3E062/JA08 3E062/JB26
 3E062/JC02 3E062/JD10 4J039 4J039/BE02 4J039/EA03 4J039/EA06 4J039/EA07 4J039/EA27 4J039/EA29 4J039/FA01
 4J039/GA02

JP F-Index: B41F17/22 B41M1/28 B41M1/40 B41N1/00 B41N1/14 B41N10/02 B41M1/02 B41M1/06 B41C1/05 B41F30/00/A B41M1/14 B41N1/12 B65D25/20/Q C09D11/02

PatBase PDF Export - Page: 14 08/04/2019

US9409433 BB	20160809	US20140301018	20140610
US9555616 BB	20170131	US20150686517	20150414
US9962924 BB	20180508	US20160231128	20160808
US10195842 BB	20190205	US20160378768	20161214
WO14201005 A1	20141218	WO2014US41713	20140610
WO16168488 A1	20161020	WO2016US27576	20160414

Priority:

US20130833799P	20130611	WO2014US41713	20140607	JP20160519592T	20140610
US20140301018	20140610	WO2014US41713	20140610	US20150686517	20150414
WO2016US27576	20160414	US20160231128	20160808	US20160378768	20161214
JP20170023060	20170210				

Probable Assignee: BALL CORP

Assignee(s): (std): BALL CORP ; BOL KORPOREJSHN

Assignee(s): CARRERAS CHRIS ; HEDBERG KELLIE M

Inventor(s): (std): CARRERAS CHRIS ; CHRIS CARRERAS ; HEDBERG KELLIE M ; KARRERAS KRIS ; HEDBERG M KELLIE ; KELLIE M HEDBERG

Inventor(s): HEDBERG M ; KELLIE HEDBERG M

Agent(s): MADDERNS PATENT AND TRADE MARK ATTORNEYS; MADDERNS PTY LTD; SMART AND BIGGAR; JOHANSSON AND LANGLOIS LTDA; JOHANSSON AND LANGLOIS; JUAN PABLO CADENA SARMIENTO; EISENFUEHR SPEISER; ONDA MAKOTO; ONDA HIRONORI; OOO SOYUZPATENT; SHERIDAN ROSS PC; KUGLER BRUCE A ET AL; KUGLER BRUCE A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

19) Family number: 1556949 (US2003186029A)

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Title: COMPRESSIBLE PRINTING BLANKET AND METHOD OF MANUFACTURING A COMPRESSIBLE PRINTING BLANKET

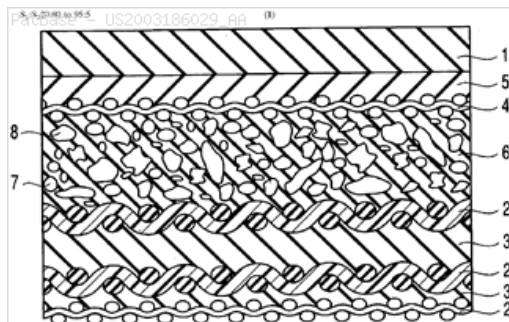
Abstract: Disclosed is a compressible printing blanket in which voids are formed in the compressible layer by using microballoons, comprising at least two fabric layers, an adhesive layer interposed between adjacent fabric layers, a surface rubber layer, and a compressible layer arranged between the at least two fabric layers and the surface rubber layer and containing spherical voids and voids having a shape other than a sphere in a ratio defined in formula given below: $S1:S220:80$ to $95:5$ (1) where, S1 denotes the number of spherical voids per unit area in a cross section of the compressible layer, and S2 denotes the number of voids having a shape other than a sphere per unit area in a cross section of the compressible layer.

Classifications:

International (IPC 8-9): B29C53/82 B29C70/02 B29C70/08 B29C70/66 B32B15/02 B32B15/14 B32B25/10 B32B27/00 B32B29/00 B32B3/00 B32B3/26 B32B5/18 B32B5/26 B32B7/12 B41F13/10 B41G7/00 B41L47/02 B41N10/02 B41N10/04 (Advanced/Invention); B32B5/18 B32B5/22 B41N10/00 (Core/Invention)

International (IPC 1-7): B29C44/06 B29C70/28 B29C70/42 B32B3/26 B32B5/18 B41N10/02

CPC: Y10S428/909 B29C70/025 B29C70/086 B29C70/66 B32B3/26 B32B5/02 B32B5/18 B32B7/12 B32B9/02 B32B9/047 B32B25/10 B32B33/00 B32B37/12 B32B2264/025 B32B2274/00 B32B2305/18 B32B2307/302 B32B2307/558 B32B2307/732 B32B2307/75 B32B2559/00 B41F13/193 B41N2210/02 B41N2210/04 B41N2210/06 B41N2210/14 B32B5/26 B41N10/02 B41N10/04 Y10T428/24496 Y10T428/24504 Y10T428/28 Y10T428/2927 Y10T428/2984



Y10T428/24998 Y10T428/31504 Y10T428/31569 Y10T442/3325 Y10T442/335 Y10T442/3366 Y10T442/3431 Y10T442/3642 Y10T428/249953 Y10T428/249975 Y10T428/249978 Y10T428/249982

European: B29C70/02A4 B29C70/08C B29C70/66 B32B25/10 B32B3/26 B32B33/00 B32B5/02 B32B5/18 B32B5/26 B32B7/12 B32B9/02 B32B9/04G B41F13/193 B41N10/02 B41N10/04 L32B264/02B3 L32B274/00 L32B305/18 L32B307/302 L32B307/558 L32B307/732 L32B307/750 L32B37/12 L32B559/00

US: 101/368 101/368S 101/375 156/155 156/309.6 156/309.600S 264/257 264/257S 264/258 264/258S 264/46.4 264/46.400S 428/158 428/158P 428/159 428/159S 428/304.4 428/304.400P 428/304.400S 428/314.2 428/315.5 428/315.9 428/317.1 428/343 428/343P 428/372 428/402.2 428/402.200S 428/411.1 428/423.9 428/909 428/909S 442/221 442/221S 442/224 442/224S 442/226 442/226S 442/234 442/260

JP F-Term: 2H114 2H114/CA02 2H114/CA03 2H114/DA25 2H114/DA53 2H114/DA64 2H114/DA74 2H114/GA12 2H114/GA38

JP F-Index: B41N10/04

Family:

Publication number	Publication date	Application number	Application date
AR036435 AA	20040908	AR2002P103366	20020906
AU2001292274 AA	20030422	AU20010292274	20010927
CN1281421 C	20061025	CN20018019985	20010927
CN1478024 A	20040225	CN20018019985	20010927
DE60138575 D1	20090610	DE20016038575	20010927
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US2006269800 AA	20061130	US20060499061	20060804
US2006280935 AA	20061214	US20060499062	20060804
US7323261 BB	20080129	US20060499061	20060804
US7361245 BB	20080422	US20060499062	20060804

WO03031196 A1	20030417	WO2001JP08456	20010927
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Priority:

WO2001JP08456 20010927 AR2002P103366 20020906 US20030422565 20030424
US20060499061 20060804 US20060499062 20060804

Probable Assignee: KINYOSHA CO LTD

Assignee(s): (std): FURUTA HISASHI ; INOUE AKIYOSHI ; KINYOSHA K K ; KINYOSHA KK ; OGAWA YOSHIHARU ; KINYOUSHA CO LTD

Assignee(s): KINYOSHA CO ; KINYOSHA CO LTD

Inventor(s): (std): AKIYOSHI INOUE ; HISASHI FURUTA ; YOSHIHARU OGAWA ; YOSHIHARU FURUTA HISASHI INOUE ; OGAWA YOSHIHARU ; INOUE AKIYOSHI ; FURUTA HISASHI

Inventor(s): FURUTA HISASHI INOUE AKIYOSHI OGAWA YOSHIHARU

Agent(s): ZINNECKER ARMIN ET AL; COOPER AND DUNHAM LLP; WHITE JOHN P; JOHN P

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

20) Family number: 32421967 (US2005274270A)

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Title: PRINTING RUBBER BLANKET

Abstract: A printing rubber blanket includes a surface rubber layer, a second base fabric layer and a first base fabric layer to be provided between the surface rubber layer and second base fabric layer, wherein the first base fabric layer contains at least one type of fiber selected from the group consisting of nylon-based fiber, polyester-based fiber, polyvinyl-alcohol-based fiber, polyolefin-based fiber, rayon fiber, and cotton fiber, and has a thickness within a range of 0.17 to 0.33 mm, a residual elongation within a range of 7 percent (inclusive) to 15 percent (exclusive) in a printing direction, and a breaking strength within a range of 20 to 70 kgf/cm in the printing direction.

Classifications:

International (IPC 8-9): B32B7/02 B41F7/02 B41N10/02

B41N10/04 (Advanced/Invention)

International (IPC 1-7): B41F7/02 B41N10/04

CPC: Y10S428/909 B41N2210/14 B41N10/04 B41N2210/04

Y10T428/24959 Y10T428/24975

European: B41N10/02 B41N10/04 L41N210/04

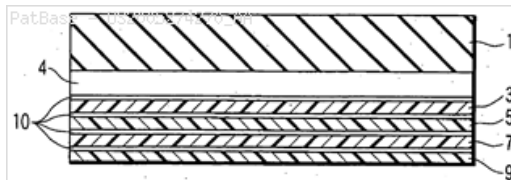
US: 101/376 428/214 428/216 428/909

JP F-Term: 2H114 2H114/CA02 2H114/CA03 2H114/CA04

2H114/DA43 2H114/DA47 2H114/DA51 2H114/DA56 2H114/DA61 2H114/DA74 2H114/DA76 2H114/EA03 2H114/FA01

2H114/FA02 2H114/FA06 2H114/CA01 2H114/DA46 2H114/EA04 2H114/EA08

JP F-Index: B41N10/04



Family:

Publication number	Publication date	Application number	Application date
AT372881 E	20070915	AT20030816076T	20030731
AU2003211400 AA	20040917	AU20030211400	20030227
AU2003252306 AA	20040917	AU20030252306	20030731
CN100376412 C	20080326	CN20038026056	20030731
CN1744996 A	20060308	CN20038026056	20030731
DE60316351 D1	20071025	DE20036016351	20030731
DE60316351 D1	20071025	DE20036016351T	20030731
DE60316351 T2	20080103	DE20036016351T	20030731
EP1598209 A1	20051123	EP20030816076	20030731
EP1598209 A4	20060419	EP20030816076	20030731
EP1598209 B1	20070912	EP20030816076	20030731
ES2293100 T3	20080316	ES20030816076T	20030731
IN03403DN2005 A	20070601	IN2005DN03403	20050801
IN226943 B	20090116	IN2005DN03403	20050801
JP2004076196 A1	20060601	JP20040568778T	20030731
JP2010149526 A2	20100708	JP20100044514	20100301
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US2005274270 AA	20051215	US20050202706	20050812
US7617771 BB	20091117	US20050202706	20050812
WO04076195 A1	20040910	WO2003JP02235	20030227
WO04076196 A1	20040910	WO2003JP09760	20030731

Priority:

WO2003JP02235 20030227 JP20040568778 20030731 JP20040568778T 20030731
WO2003JP09760 20030731 JP20100044514 20100301

Probable Assignee: KINYOSHA CO LTD

Assignee(s): (std): KINYOSHA CO LTD ; KINYOSHA KK ; KINYOUSHA CO LTD ; MITSUBISHI MATERIALS CORP ; OGAWA YOSHIHARU

Assignee(s): KINYOSHA CO

Inventor(s): (std): KIMIYA HISADA ; OGAWA YOSHIHARU ; TAKESHI HAYASHI ; OGAWA KICHIJI ; KIMIYA HAYASHI TAKESHI HISADA

Inventor(s): HAYASHI TAKESHI HISADA KIMIYA ; HAYASHI TAKESHI ; HISADA KIMIYA ; YOSHIHARU OGAWA

Agent(s): COOPER AND DUNHAM LLP; JOHN P

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Title: REPLACEABLE SLEEVE

Abstract: A replaceable sleeve (10) having a working surface is provided which is adapted to be mounted on a carrier (12). The sleeve includes an inner polymeric layer (20), a reinforcing layer (22) overlying the inner layer, an intermediate polymeric layer (24) overlying the reinforcing layer, and an outer polymeric layer (28). The sleeve may include a cushion layer (26) between the intermediate layer and the outer layer. The layers comprising the sleeve are formed around a support and then cured simultaneously in a single step. The resulting sleeve may be used in printing operations or in other applications such as coating, embossing, laminating, calendering and the like.

Classifications:

International (IPC 8-9): B32B25/04 B41C1/18 B41N1/22 B41N7/00 F16L55/17 (Advanced/Invention);

B32B25/00 B41C1/00 B41N1/00 B41N7/00 F16L55/16 (Core/Invention)

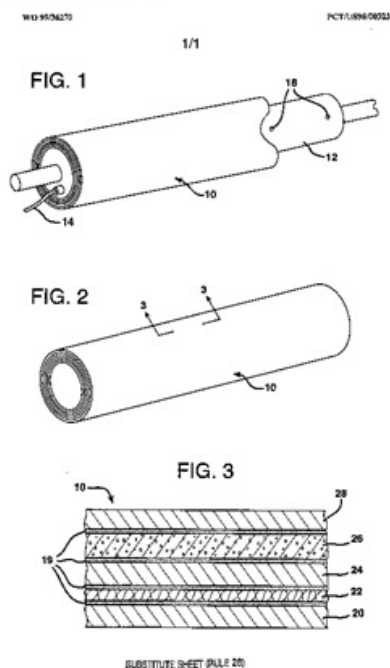
International (IPC 1-7): B32B25/04 B41F13/08 B41N10/04 F16L55/17

CPC: B41N2207/02 B41N2207/04 B41N2207/14 F16L55/17

B32B25/04 B41C1/182 B41N7/00

European: B32B25/04 B41C1/18A B41N7/00 F16L55/17

PatBase - W09936270_A1

**Family:**

Publication number	Publication date	Application number	Application date
AU199858183 A1	19990802	AU19980058183	19980115
EA002198 B1	20020228	EA20000000721	19980115
EA200000721 A1	20001225	EA20000000721	19980115
EP1047562 A1	20001102	EP19980901730	19980115
WO9936270 A1	19990722	WO1998US00323	19980115

Priority:

WO1998US00323 19980115

Probable Assignee: DAY INT INC

Assignee(s): (std): DAY INT INC

Assignee(s): DAY INTERNATIONAL INC

Inventor(s): (std): FERGUSON THOMAS GERALD ; LANE WILLIAM JAMES III ; MCLEAN MICHAEL EDWARD

Inventor(s): MICHAEL EDWARD MCLEAN ; THOMAS GERALD FERGUSON ; WILLIAM JAMES LANE III

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