

[SS 13] Y3Fe5O12 and pigment and reversible and temperature and optical

Results in EPODOC 0

EPODOC: term 'Y3Fe5O12' not found in index 'BI'. WARNING(1)

[SS 14] pigment and reversible and temperature and optical

Results in EPODOC 11

[SS 15] ..li



1/11 © EPODOC / EPO

- PN - [MX2017000315](#) A 20170427
- PR - FR20140056590 20140708; WO2015FR51868 20150706
- AP - MX20170000315 20150706
- DT - I
- CCI - [A47J36/025](#) ; [C01G49/0054](#) ; [C01B33/24](#) ; [C09K9/00](#) ; [G01K11/14](#)
- CUI - [C09D1/00](#) ; [C09D5/26](#) ; [C09D127/18](#) ; [C09D7/61](#)
- CCA - [C01B33/20](#) ; [C01P2004/61](#) ; [C01P2006/60](#) ; [G01K2207/08](#)
- CUA - [C08K3/22](#) ; [C08K2003/2265](#)
- PA - SEB SA [FR]
- TI - ANTI-ADHESIVE COATING COMPRISING AT LEAST ONE FUNCTIONAL DECORATIVE LAYER AND ITEM PROVIDED WITH SUCH A COATING.
- AB - The present invention relates to an anti-adhesive coating comprising at least one functional decorative layer, comprising a **pigment** composition having a **reversible** variation of **optical** and/or colorimetric properties when the coating is subjected to a **temperature** variation between a cold **temperature** of 0°C to 40°C and a hot **temperature** of 80°C to 400°C. Also according to the invention, the **pigment** composition comprises at least one compound of formula $Y(3-x)M_xFe(5-\tilde{f})^3Q_yO_{12}$ in the form of particles, in which M is selected from the lanthanides, alkaline metals, alkaline-earth metals and metalloids with a degree of oxidation (DO) +3; Q is selected from the group made up of the lanthanides, non-metals with degree of oxidation +4, metals with DO +3 or +4, transition metals with DO +2 or +4, alkaline-earth metals and alkaline metals; and wherein x is between 0 and 0.3 and y is between 0 and 3.

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- PN - [US2017158879](#) A1 20170608
- PNFP - US9758681 B2 20170912
- PR - FR20140056590 20140708; WO2015FR51868 20150706
- AP - US201515323992 20150706
- DT - **
- CCI - [A47J36/025](#) ; [C01G49/0054](#) ; [C01B33/24](#) ; [C09K9/00](#) ; [G01K11/14](#)

CUI	- C09D1/00 ; C09D5/26 ; C09D127/18 ; C09D7/61
CCA	- C01B33/20 ; C01P2004/61 ; C01P2006/60 ; G01K2207/08
CUA	- C08K3/22 ; C08K2003/2265
PA	- (A1) SEB SA [FR] - (B2) SEB SA [FR]; SEB SA [FR]
TI	- (A1) Non-Stick Coating Comprising at Least One Functional Decorative Layer and Item Provided with Such a Coating - (B2) Non-stick coating comprising at least one functional decorative layer and item provided with such a coating
AB	- (A1 B2) Provided is a non-stick coating including at least one functional decorative layer, including a pigment composition having a reversible variation of optical and/or colorimetric properties when the coating is subjected to a temperature variation between a cold temperature of 0° C. to 40° C. and a hot temperature of 80° C. to 400° C. The pigment composition includes at least one compound of formula $Y(3-x)M_xFe(5-y)Q_yO_{12}$ in the form of particles, in which M is selected from the lanthanides, alkaline metals, alkaline-earth metals and metalloids with a degree of oxidation (DO) +3; Q is selected from the group made up of the lanthanides, non-metals with degree of oxidation +4, metals with DO +3 or +4, transition metals with DO +2 or +4, alkaline-earth metals and alkaline metals; and wherein x is between 0 and 0.3 and y is between 0 and 3.

3/11 © EPODOC / EPO

PN	- CN106536417 A 20170322
PR	- FR20140056590 20140708; WO2015FR51868 20150706
AP	- CN2015836939 20150706
DT	- I
CT	- STSE (A) US3878005 A 19750415 [A] (WARREN ROBERT G, et al) [A] 1-13 * 全文 *; US4667869 A 19870526 [A] (GEN TAMAR G [US], et al) [A] 1-13 * 全文 *; US4691983 A 19870908 [A] (KOBAYASHI TOSHIO [JP], et al) [A] 1-13 * 全文 *; CN102448395 A 20120509 [A] (NEXSPROUT L L C) [A] 1-13 * 全文 *; CN103415236 A 20131127 [A] (SEB SA) [A] 1-13

	* 全文 *
CTNP	- STSE (A) [A] - 吴玉鹏, 高虹, "热致变色材料的分类及变色机理", 《节能》 [A] 1-13 * 第17-20页 * [A] - 王旭东等, "可逆热致变色材料的应用新进展", 《化工进展》 [A] 1-13 * 第42-45页 * [A] - 周家茵等, "钢系配合物热致变色性能的研究 (III)", 《国防科技大学学报》 [A] 1-13 * 第116-120页 *
CCI	- A47I36/025 ; C01G49/0054 ; C01B33/24 ; C09K9/00 ; G01K11/14
CUI	- C09D1/00 ; C09D5/26 ; C09D127/18 ; C09D7/61
CCA	- C01B33/20 ; C01P2004/61 ; C01P2006/60 ; G01K2207/08
CUA	- C08K3/22 ; C08K2003/2265
PA	- SEB SA
TI	- Anti-adhesive coating comprising at least one functional decorative layer and item provided with such a coating
AB	- The present invention relates to an anti-adhesive coating comprising at least one functional decorative layer, comprising a pigment composition having a reversible variation of optical and/or colorimetric properties when the coating is subjected to a temperature variation between a cold temperature of 0 DEG C to 40 DEG C and a hot temperature of 80 DEG C to 400 DEG C. Also according to the invention, the pigment composition comprises at least one compound of formula Y (3-x) MxFe (5-y) QyO12 in the form of particles, in which M is selected from the lanthanides, alkaline metals, alkaline-earth metals and metalloids with a degree of oxidation (DO) +3; Q is selected from the group made up of the lanthanides, non-metals with degree of oxidation +4, metals with DO +3 or +4, transition metals with DO +2 or +4, alkaline-earth metals and alkaline metals; and wherein x is between 0 and 0.3 and y is between 0 and 3.

4/11 © EPODOC / EPO

PN	- WO2016005694 A1 20160114
PR	- FR20140056590 20140708
AP	- WO2015FR51868 20150706
DT	- *; Rep
CT	- EP ISR (A1) XP055173879 A[XP]; XP024452927 A[I]; XP000729212 A[I]; FR2038681 A5 19710108 [X] (RAFFINAGE CIE FRANCAISE) [X] 14,15 * page 2, line 27 - page 3, line 35 * * examples 2,3 *; FR2784459 A1 20000414 [AD] (SEB SA [FR])

[AD] 1-13
 * the whole document *

CTNP - |EP| ISR (A1)
 [XP] - HÉLÈNE SERIER-BRAULT ET AL, "Thermochromism in Yttrium Iron Garnet Compounds", INORGANIC CHEMISTRY, (20141201), vol. 53, no. 23, doi:[10.1021/ic501708b](https://doi.org/10.1021/ic501708b), ISSN 0020-1669, pages 12378 - 12383, XP055173879
 [XP] 1-17
 * the whole document *

[I] - SZTANISZLAV A ET AL, "Investigation of garnet formation by sintering of Y2O3 and Fe2O3", JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 41, no. 1-3, doi:[10.1016/0304-8853\(84\)90141-0](https://doi.org/10.1016/0304-8853(84)90141-0), ISSN 0304-8853, (19840201), pages 75 - 78, (19840201), XP024452927
 [I] 14
 * abstract *

[I] - VAQUEIRO P ET AL, "INFLUENCE OF COMPLEXING AGENTS AND PH ON YTTRIUM-IRON GARNET SYNTHESIZED BY THE SOL-GEL METHOD", CHEMISTRY OF MATERIALS, AMERICAN CHEMICAL SOCIETY, US, (19971201), vol. 9, no. 12, doi:[10.1021/CM970165F](https://doi.org/10.1021/CM970165F), ISSN 0897-4756, pages 2836 - 2841, XP000729212
 [I] 15-17
 * abstract *

CCI - [A47J36/025](#) ; [C01G49/0054](#) ; [C01B33/24](#) ; [C09K9/00](#) ; [G01K11/14](#)

CUI - [C09D1/00](#) ; [C09D5/26](#) ; [C09D127/18](#) ; [C09D7/61](#)

CCA - [C01B33/20](#) ; [C01P2004/61](#) ; [C01P2006/60](#) ; [G01K2207/08](#)

CUA - [C08K3/22](#) ; [C08K2003/2265](#)

PA - SEB SA [FR]

TI - ANTI-ADHESIVE COATING COMPRISING AT LEAST ONE FUNCTIONAL DECORATIVE LAYER AND ITEM PROVIDED WITH SUCH A COATING

AB - The present invention relates to an anti-adhesive coating comprising at least one functional decorative layer, comprising a **pigment** composition having a **reversible** variation of **optical** and/or colorimetric properties when the coating is subjected to a **temperature** variation between a cold **temperature** of 0°C to 40°C and a hot **temperature** of 80°C to 400°C. Also according to the invention, the **pigment** composition comprises at least one compound of formula $Y(3-x)M_xFe(5-y)Q_yO_{12}$ in the form of particles, in which M is selected from the lanthanides, alkaline metals, alkaline-earth metals and metalloids with a degree of oxidation (DO) +3; Q is selected from the group made up of the lanthanides, non-metals with degree of oxidation +4, metals with DO +3 or +4, transition metals with DO +2 or +4, alkaline-earth metals and alkaline metals; and wherein x is between 0 and 0.3 and y is between 0 and 3.

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PN - [CN104790621](#) A 20150722

PR - CN20151225064 20150506

AP - CN20151225064 20150506

DT - I

PA - SUZHOU XIANGTIAN DECORATION AND DESIGN CO LTD

- TI - Multiple-functional color changing wallpaper
- AB - The invention discloses multiple-functional color changing wallpaper. The multiple-functional color changing wallpaper comprises a color changing layer, a color changing base layer, a body layer and a base layer, wherein the color changing base layer is connected with the color changing layer, **reversible temperature**-sensitive **pigment** is added into the color changing base layer, the color changing layer is transparent and comprises an **optical** thin film, and the body layer, the base layer and the color changing base layer are connected with one another. By means of the mode, the multiple-functional color changing wallpaper is provided, the stereoscopic impression of the wallpaper is increased, the color of the wallpaper can change along changing of **temperature**, people can feel the changing of the **temperature**, the color changing layer and the color changing base layer can be adjusted to adjust the color of the surface layer of the wallpaper, and the interior of a room is warmer and sweeter.

6/11 © EPODOC / EPO

- PN - [JP2008296490](#) A 20081211
- PR - JP20070146453 20070601
- AP - JP20070146453 20070601
- DT - I
- FI - B41F22/00; B41F31/02&A; B41F31/26&Z; B41F33/00; B41F33/14&Z; B41F9/00; B41N7/06
- FT - 2C034/AA22; 2C034/AE32; 2C250/DB02; 2C250/DC04; 2C250/DC12; 2C250/EA03; 2C250/EA22; 2C250/EB50
- PA - NAT PRINTING BUREAU
- TI - INTAGLIO PRINTING MACHINE PATTERN ROLLER AND INKING DEVICE USING THE SAME
- AB - PROBLEM TO BE SOLVED: To provide an intaglio printing machine pattern roller having higher printing performance and a longer life than a conventional intaglio printing machine pattern roller while allowing easy visual check of a contact condition between the intaglio printing surface and the roller, and to provide an inking device using the same.
- SOLUTION: The machine pattern roller 1 is covered with at least one rubber and/or resin layer on the axial core. Herein, at least part of the pattern surface layer forming the pattern of the pattern roller 1 contains **reversible temperature**-indicating **pigment**. To the inking device at its portion near the pattern roller 1, there are attached an **optical** detecting device 16 for detecting the pattern surface layer, and a thrust control device 17 and a thrust managing device 18 for controlling and managing thrust on the intaglio printing surface.
- COPYRIGHT: (C)2009,JPO&INPIT

7/11 © EPODOC / EPO

- PN - [JP2001100189](#) A 20010413
- PR - JP19990274012 19990928
- AP - JP19990274012 19990928
- DT - I

- FI - C09K19/02; C09K19/54&B; C09K19/54&Z; G02F1/13&102; G02F1/13&500; G02F1/1333&610; G02F1/1334; G09F9/35; G09F9/35&303; G09F9/35&305
- FT - 2H088/EA62; 2H088/GA02; 2H088/GA04; 2H088/GA10; 2H088/GA13; 2H088/GA17; 2H088/JA22; 2H088/MA01; 2H088/MA02; 2H088/MA20; 2H089/HA04; 2H089/JA04; 2H089/KA04; 2H089/KA08; 2H089/QA16; 2H089/RA16; 2H089/TA07; 2H189/AA04; 2H189/BA04; 2H189/CA04; 2H189/CA08; 2H189/HA16; 2H189/JA22; 2H189/LA08; 4H027/BA02; 4H027/BB07; 4H027/BB11; 4H027/BC08; 4H027/BD08; 4H027/BD17; 4H027/BD20; 4H027/CF02; 4H027/CJ01; 5C094/AA06; 5C094/AA22; 5C094/BA09; 5C094/BA43; 5C094/BA49; 5C094/EA05; 5C094/EB02; 5C094/ED14; 5C094/ED20; 5C094/FB01; 5C094/FB20; 5C094/GA01; 5C094/GA02; 5C094/GA03
- PA - JAPAN SCIENCE & TECH CORP; NOF CORP; KAJIYAMA CHISATO
- TI - THERMAL WRITING LIQUID CRYSTAL **OPTICAL** MATERIAL UTILIZING POLYMER NETWORK
- AB - PROBLEM TO BE SOLVED: To provide a liquid crystal **optical** material showing a **reversible optical** switching memory function capable of heat mode writing to write information as a transparent state in a cloudy state utilizing a thermal electro-**optical** effect and erasing with a electric field effect, having a stable memory function in a wide tempera ture range including room **temperature** , making fast thermal writing possible with low output by laser beam and having high contrast. SOLUTION: A liquid crystal compound containing a photo polymerizable monomer, a low molecular weight liquid crystal with positive dielectric anisotropy and a chiral dopant and doped with a polymerization initiator and exhibiting a smectic A phase at the room **temperature** and a chiral nematic phase at higher **temperature** is injected in a homogeneously alignment-treated cell in an isotropic state. Subsequently it is cooled to result in a chiral nematic phase and photo polymerization is carried out in the chiral nematic state. The cloudy state formed by the subsequent cooling to a **temperature** in which the smectic phase is exhibited and the application of the electric field at the **temperature** is set to be the initial state of the liquid crystal **optical** material composed of a ternary composite system of a polymer network, the low molecular weight liquid crystal and the chiral dopant or a quaternary composite system with addition of a thermo sensitive **pigment**.

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- PN - [JPH08333534](#) A 19961217
- PR - JP19950161532 19950606
- AP - JP19950161532 19950606
- DT - I
- FI - B41J2/01&401; B41J2/01&501; B41J3/04&101Y; B41M5/00&E; B41M5/00&120; C09D11/00; C09D11/00+PSZ; C09D11/322; C09D11/324; C09D11/326; C09D11/328; C09D11/38
- FT - 2C056/EA05; 2C056/EA12; 2C056/EC07; 2C056/EC29; 2C056/FA03; 2C056/FC01; 2C056/FC02; 2C056/HA15; 2H086/BA02; 2H086/BA53; 2H086/BA54; 2H086/BA55; 2H086/BA59; 2H086/BA60; 2H086/BA61; 2H086/BA62; 2H186/AB05; 2H186/BA10; 2H186/DA14; 2H186/FB11; 2H186/FB15; 2H186/FB16; 2H186/FB17; 2H186/FB25; 2H186/FB29; 2H186/FB30; 2H186/FB48; 2H186/FB53; 2H186/FB57; 4J039/AD03; 4J039/AD08; 4J039/AD10; 4J039/AD11; 4J039/AD14; 4J039/AD15; 4J039/AE07; 4J039/BA04; 4J039/BC07; 4J039/BC08; 4J039/BC09; 4J039/BC11; 4J039/BC12;

4J039/BC15; 4J039/BC32; 4J039/BC35; 4J039/BC37; 4J039/BC50; 4J039/BC54;
4J039/BC55; 4J039/BE01; 4J039/BE02; 4J039/BE12; 4J039/BE15; 4J039/BE22;
4J039/CA03; 4J039/EA46; 4J039/EA47; 4J039/GA24

- PA - CANON KK
- TI - AQUEOUS INK, INK JET RECORDING USING THE SAME AND APPARATUS USING THE SAME INK
- AB - PURPOSE: To obtain an aqueous ink for ink jetting, containing a polymer showing heat **reversible** thickening properties prepared by copolymerizing a specific monomer composition, having solved problems of feathering and bleeding despite acquisition of high **optical** concentration. CONSTITUTION: This ink comprises a liquid composition containing a coloring material (preferably carbon black or an organic **pigment**) and a liquid medium. The liquid composition comprises a polymer showing heat **reversible** thickening properties prepared by polymerizing a monomer composition containing ≥ 50 wt.% of one or more monomers of the formula [R1 is H or CH₃; R2 is H, 1-30C alkyl, an (alkyl)phenyl or an (alkyl-substituted)aminoalkyl; (n), (m) and (1) are each 2-4; (x) is 2-50; (y) is 1-50; (z) is 0-50]. Preferably the liquid composition contains a polymer prepared by copolymerizing the monomer of the formula (e.g. ω -methoxypolypropylene glycol-polyethylene glycol methacrylate, etc.) with another vinyl-based monomer, 0.005-20wt.% of the polymer is contained in the ink and the transition **temperature** of the polymer to start thickening is 10-85 deg.C.

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- PN - [JPH08333533](#) A 19961217
- PR - JP19950161525 19950606
- AP - JP19950161525 19950606
- DT - I
- FI - B41J2/01&401; B41J2/01&501; B41J2/175&301; B41J3/04&101Y; B41M5/00&E; B41M5/00&120; C09D11/00; C09D11/00+PSZ; C09D11/322; C09D11/324; C09D11/326; C09D11/328; C09D11/38
- FT - 2C056/EA05; 2C056/EA11; 2C056/EA12; 2C056/EC16; 2C056/EC19; 2C056/EC21; 2C056/EC24; 2C056/EC29; 2C056/EC30; 2C056/FA03; 2C056/FA04; 2C056/FC01; 2C056/FC02; 2H086/BA02; 2H086/BA53; 2H086/BA54; 2H086/BA55; 2H086/BA59; 2H086/BA60; 2H086/BA61; 2H086/BA62; 2H186/AB05; 2H186/BA10; 2H186/DA14; 2H186/FB11; 2H186/FB15; 2H186/FB16; 2H186/FB25; 2H186/FB29; 2H186/FB30; 2H186/FB48; 2H186/FB50; 2H186/FB53; 2H186/FB57; 4J039/AD03; 4J039/AD05; 4J039/AD08; 4J039/AD09; 4J039/AD10; 4J039/AD11; 4J039/AD12; 4J039/AD14; 4J039/AD15; 4J039/AD22; 4J039/AD23; 4J039/AE05; 4J039/AE07; 4J039/BA04; 4J039/BA16; 4J039/BA24; 4J039/BC07; 4J039/BC08; 4J039/BC09; 4J039/BC11; 4J039/BC12; 4J039/BC15; 4J039/BC32; 4J039/BC33; 4J039/BC35; 4J039/BC37; 4J039/BC49; 4J039/BC50; 4J039/BC51; 4J039/BC54; 4J039/BC55; 4J039/BC56; 4J039/BC58; 4J039/BE01; 4J039/BE02; 4J039/BE12; 4J039/BE15; 4J039/BE22; 4J039/CA03; 4J039/EA42; 4J039/EA46; 4J039/EA47; 4J039/FA01; 4J039/GA24
- PA - CANON KK
- TI - AQUEOUS INK, INK JET RECORDING USING THE SAME AND APPARATUS USING THE SAME INK
- AB - PURPOSE: To obtain an aqueous ink for ink jetting, containing a specific

heat **reversible** phase-separable polymer and/or a surfactant and an ammonium salt, having solved problems of feathering and bleeding despite of acquisition of high **optical** concentration. CONSTITUTION: This aqueous ink comprises a liquid composition containing a coloring material (preferably carbon black or an organic **pigment**) and a liquid medium, and includes (A) a heat **reversible** phase-separable polymer which is subjected to phase separation from an aqueous solution at a **temperature** equal to or higher than a thermoplastic transition **temperature** T_s and/or (B) a surfactant having a cloud point T_c and (C) an ammonium salt (e.g. ammonium chloride, etc.). The component A is preferably a water-soluble vinyl-based polymer containing ≥ 50 wt.% of a vinyl-based carboxylic acid ester of an alkylene oxide adduct to a nitrogen-containing ring-containing active hydrogen compound and the component B is preferably a surfactant of an ethylene oxide addition type of formula I or formula II (R is a 8-22C alkyl ; n is 6-20; $20 \leq m \leq 80$ and $5 \leq n \leq 200$).

10/11 © EPODOC / EPO

PN - [JPH08333532](#) A 19961217

PR - JP19950161524 19950606

AP - JP19950161524 19950606

DT - I

FI - B41J2/01&401; B41J2/01&501; B41J2/175&301; B41J3/04&101Y; B41M5/00&E; B41M5/00&120; C09D11/00; C09D11/00+PSZ; C09D11/322; C09D11/324; C09D11/326; C09D11/328; C09D11/38

FT - 2C056/EA05; 2C056/EA12; 2C056/EC07; 2C056/EC19; 2C056/EC21; 2C056/EC24; 2C056/EC29; 2C056/FA03; 2C056/FB02; 2C056/FB03; 2C056/FB04; 2C056/FC01; 2C056/HA15; 2H086/BA02; 2H086/BA53; 2H086/BA54; 2H086/BA55; 2H086/BA59; 2H086/BA60; 2H086/BA61; 2H086/BA62; 2H186/BA10; 2H186/DA14; 2H186/FB11; 2H186/FB15; 2H186/FB16; 2H186/FB25; 2H186/FB29; 2H186/FB30; 2H186/FB48; 2H186/FB53; 2H186/FB57; 4J039/AD05; 4J039/AD08; 4J039/AD10; 4J039/AD11; 4J039/AD12; 4J039/AD14; 4J039/AD15; 4J039/AD23; 4J039/AE05; 4J039/AE06; 4J039/AE07; 4J039/BA04; 4J039/BC07; 4J039/BC08; 4J039/BC09; 4J039/BC11; 4J039/BC12; 4J039/BC15; 4J039/BC32; 4J039/BC35; 4J039/BC36; 4J039/BC37; 4J039/BC50; 4J039/BC51; 4J039/BC53; 4J039/BC54; 4J039/BE01; 4J039/BE02; 4J039/BE12; 4J039/BE15; 4J039/BE22; 4J039/CA03; 4J039/EA29; 4J039/EA42; 4J039/EA46; 4J039/EA47; 4J039/FA01; 4J039/FA03; 4J039/GA24

PA - CANON KK

TI - AQUEOUS INK, INK JET RECORDING USING THE SAME AND APPARATUS USING THE SAME INK

AB - PURPOSE: To obtain an aqueous ink for ink jetting, containing a specific heat **reversible** phase-separable polymer and a surfactant, and performed the solution of feathering and bleeding problems indispensable in high-quality recording despite of acquisition of high **optical** concentration. CONSTITUTION: This aqueous ink comprises a liquid composition containing a coloring material (preferably carbon black or an organic **pigment**) and a liquid medium, and includes (A) a heat **reversible** phase-separable polymer which is subjected to phase separation from an aqueous solution at a **temperature** equal to or higher than a thermoplastic transition **temperature** T_s and (B) a surfactant having a cloud point T_c . The

component A is preferably a water-soluble vinyl-based polymer containing $\geq 50\text{wt.}\%$ of a vinyl-based carboxylic acid ester of an ethylene oxide adduct to a nitrogen-containing ring-containing active hydrogen compound, especially 1-20mol ethylene oxide and/or propylene oxide adduct to a (substituted) morpholine as a constituent unit and the component B is preferably a surfactant of an ethylene oxide addition type of formula I or formula II (R is a 8-22C alkyl; (n) is 6-20; $20 \leq m \leq 80$ and $5 \leq n \leq 200$).

11/11 © EPODOC / EPO

PN - [JPH09193279](#) A 19970729

PR - JP19960026053 19960119

AP - JP19960026053 19960119

DT - I

FI - B32B19/00; B32B7/02&103; B32B9/00&A

FT - 4F100/AA21A; 4F100/AA21H; 4F100/AC05A; 4F100/AC10H; 4F100/AH02; 4F100/AH03; 4F100/AH10; 4F100/AH10B; 4F100/AK25; 4F100/AK53G; 4F100/AR00A; 4F100/AR00B; 4F100/BA02; 4F100/CA02; 4F100/CA13A; 4F100/DD32A; 4F100/DD32H; 4F100/DE01A; 4F100/GB08; 4F100/GB84; 4F100/JN24A; 4F100/JN28B; 4F100/YY00A; 4F100/YY00H

PA - PILOT INK CO LTD

TI - METAL GLOSSED HEAT DISCOLORING LAMINATE

AB - PROBLEM TO BE SOLVED: To obtain a metal glossed heat discoloring laminated plate provided with brightness, decoration, novelty, remarkability properties by using a metal gloss **pigment** in which the **optical** thickness of a coating layer in which the surface of natural mica is coated with a specified amount of titanium oxide and a particle size are specified. SOLUTION: In as laminated plate 1 which visualized the change in a metallic color by the change of **temperature**, a metal gloss layer 2 which adjusts the wavelength of reflected light in which a metal gloss **pigment** in which the surface of natural mica is coated with titanium oxide is fixed in a state in which the **pigment** is dispersed in a binder is laminated in a **reversible** color change layer 3 in which a heat-color changing material consisting of an electron donating coloring organic compound, an electron accepting compound, and an organic compound medium which produces the color reaction between the two compounds reversibly is fixed in a binder in a dispersed state. In the metallic gloss **pigment**, the **optical** thickness of the coating layer in which the surface of natural mica is coated with 14-58wt.% of titanium oxide is 110-415nm, and its particle size is 30-300[μm].