

Title (en)
Planar element and method for the production thereof

Title (de)
Flächiges Element und Verfahren zum Herstellen desselben

Title (fr)
Élément plat et procédé pour le produire

Publication
EP 2562004 B1 20191106 (DE)

Application
EP 12189493 A 20080527

Priority
• DE 102007025014 A 20070527
• EP 08758788 A 20080527
• EP 2008004203 W 20080527

Abstract (en)
[origin: WO2008145341A2] The aim of the invention is to design a planar element (100) and devise a method for producing such planar elements (100) in such a way that said planar element (100) is easy and inexpensive to produce and allows remarkable optical effects to be obtained. Said aim is achieved by applying at least one coating (30) to at least one area or side of at least one support substrate (10), especially at least one support plate.

IPC 8 full level
B44F 1/06 (2006.01); **B32B 17/06** (2006.01); **E04C 2/26** (2006.01); **E04F 13/08** (2006.01); **E04F 13/14** (2006.01); **F21V 33/00** (2006.01); **G09F 13/04** (2006.01); **A47B 96/20** (2006.01); **B44C 5/04** (2006.01)

CPC (source: EP US)
A47B 96/20 (2013.01 - EP US); **B05D 1/36** (2013.01 - US); **B44C 5/04** (2013.01 - EP US); **E04C 2/26** (2013.01 - US); **E04C 2/292** (2013.01 - EP US); **E04F 13/0871** (2013.01 - EP US); **G09F 13/04** (2013.01 - EP US); **E04F 13/0866** (2013.01 - EP US); **Y10T 428/13** (2015.01 - EP US); **Y10T 428/24802** (2015.01 - EP US); **Y10T 428/31504** (2015.04 - EP US); **Y10T 428/31645** (2015.04 - EP US); **Y10T 428/31678** (2015.04 - EP US); **Y10T 428/31935** (2015.04 - EP US); **Y10T 428/31938** (2015.04 - EP US); **Y10T 428/31971** (2015.04 - EP US)

Citation (opposition)
Opponent : MB Digitalprint GmbH & Co. KG
• EP 1160230 A1 20011205 - MITSUBISHI CHEM CORP [JP]
• EP 0864444 A1 19980916 - HSB HELMUT SZYNKA GMBH [DE]
• EP 1354719 A2 20031022 - HEWLETT PACKARD CO [US]
• US 2003032708 A1 20030213 - SCARLETTE TERRY LANE [US]
• DE 4304491 A1 19940818 - ZELLER & GMELIN GMBH & CO [DE]
• DE 102004056584 A1 20060601 - SCHULTE JOHANNES [DE]
• US 2004086678 A1 20040506 - CHEN HAO A [US], et al
• WO 0200449 A1 20020103 - BAUER JOERG R [DE]
• US 4293603 A 19811006 - HAYMAN-CHAFFEY CHARLES R, et al
• DE 3838930 A1 19890601 - TOYO INK MFG CO [JP]
• EP 1669193 A1 20060614 - DAINIPPON PRINTING CO LTD [JP]
• DE 60006739 T2 20040923 - DAINIPPON PRINTING CO LTD [JP]
• DE 102004032058 B4 20091203 - FRITZ EGGER GMBH & CO [AT]
• "BASF Handbuch Lackiertechnik", 1 January 2002, BASF COATINGS AG, article ARTHUR GOLDSCHMIDT, HANS-JOACHIM STREITBERGER: "BASF Handbuch Lackiertechnik (auszug)", pages: 199, 341, 490, 692, 768, XP055601130
• ANONYM: "Lack, Wikipedia", WIKIPEDIA, 24 December 2019 (2019-12-24), XP055783547, Retrieved from the Internet <URL:https://de.wikipedia.org/wiki/Lack> [retrieved on 20210309]
• SQUARAIN, WIKIPEDIA, 10 January 2020 (2020-01-10), XP055783602, Retrieved from the Internet <URL:https://de.wikipedia.org/wiki/Squaraine>
• ANONYM: "Verarbeitungsrichtlinien - Oberflächenbehandlung - Plexiglas® GS, Plexiglas® XT , Makrolon", BROSCHÜRE VON RÖHM, 1 February 1999 (1999-02-01), pages 1 - 12, XP055783611
• BEITZ W, K-H KÜTTNER: "Dubbel: Taschenbuch für den Maschinenbau (auszug). 17. Auflage", 1 January 1990 (1990-01-01), pages 1,2,s91, XP055783575
• ECKHARD, ET AL: "Holztechnik Fachkunde (Auszug). 20. Auflage", EUROPA LEHRMITTEL, 1 January 2005 (2005-01-01), pages 262 - 265, XP055783624
• WIKIPEDIA: "Wikipedia: Polymethylmethacrylat", 10 January 2020 (2020-01-10), pages 1 - 6, XP055783635, Retrieved from the Internet <URL:https://de.wikipedia.org/wiki/Polymethylmethacrylat> [retrieved on 20210309]
• ANONYM: "Glas. Wikipedia", WIKIPEDIA, 11 July 2020 (2020-07-11), pages 1 - 40, XP055783639, Retrieved from the Internet <URL:https://de.wikipedia.org/wiki/Glas> [retrieved on 20210309]

Cited by
EP3632262A1; IT20180009047A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2008145341 A2 20081204; WO 2008145341 A3 20090129; DE 202008018559 U1 20151113; DK 2158095 T3 20170731; DK 2562002 T3 20160425; EP 2158095 A2 20100303; EP 2158095 B1 20170412; EP 2562002 A2 20130227; EP 2562002 A3 20130619; EP 2562002 B1 20160120; EP 2562003 A2 20130227; EP 2562003 A3 20130619; EP 2562004 A2 20130227; EP 2562004 A3 20130612; EP 2562004 B1 20191106; ES 2566676 T3 20160414; ES 2630007 T3 20170817; HR P20160401 T1 20160520; PL 2158095 T3 20170929; PL 2562002 T3 20160831; PL 2562004 T3 20200518; SI 2562002 T1 20160831; US 2010238656 A1 20100923; US 2014247580 A1 20140904; US 8714766 B2 20140506

DOCDB simple family (application)
EP 2008004203 W 20080527; DE 202008018559 U 20080527; DK 08758788 T 20080527; DK 12189491 T 20080527; EP 08758788 A 20080527; EP 12189491 A 20080527; EP 12189492 A 20080527; EP 12189493 A 20080527; ES 08758788 T 20080527; ES 12189491 T 20080527;

HR P20160401 T 20160418; PL 08758788 T 20080527; PL 12189491 T 20080527; PL 12189493 T 20080527; SI 200831601 A 20080527;
US 201414255495 A 20140417; US 60187308 A 20080527