

Title (en)

Process and apparatus for making a structured surface and manufactured object with stuctured surface

Title (de)

Verfahren zur Herstellung einer strukturierten Oberfläche und Platte mit einer strukturierten Oberfläche

Title (fr)

Procédé et appareil pour faire une surface structurée et objet manufacturé avec une surface structurée

Publication

EP 1645339 B1 20150708 (DE)

Application

EP 04028565 A 20041202

Priority

DE 102004049022 A 20041005

Abstract (en)

[origin: EP1645339A1] The surface of panels (2) are provided with a structured surface finish that is provided by applying a lacquered coating that can be profiled. The lacquer is applied by roller drums that are coated with a lacquer film as the panel pass along on a conveyor belt (4). The roller stations (6,8,18,20) have different surfaces to form the required finish.

IPC 8 full level

B05C 1/02 (2006.01); **B05D 5/06** (2006.01); **B05D 7/06** (2006.01); **B05C 1/08** (2006.01); **B05C 9/14** (2006.01); **B05D 1/28** (2006.01);
B05D 7/00 (2006.01)

CPC (source: EP US)

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B05C 9/14 (2013.01 - EP); **B05D 1/28** (2013.01 - EP); **B05D 7/52** (2013.01 - EP); **B05D 7/544** (2013.01 - EP); **B05D 7/584** (2013.01 - EP);
B05D 2203/20 (2013.01 - EP); **B41J 3/4073** (2013.01 - EP US); **E04F 15/02** (2013.01 - EP)

Citation (opposition)

Opponent : Flooring Technologies Ltd.,

- US 6326074 B1 20011204 - TAKAHASHI KAZUHIRO [JP]
- US 5178928 A 19930112 - GOTO HIDEO [JP], et al
- DE 2421794 A1 19750424 - RELIANCE UNIVERSAL
- DE 2919847 B1 19801016 - LISSMANN ALKOR WERK
- DE 2005282 A1 19700903
- DE 19532819 A1 19970313 - HOFA HOMANN VERWALTUNGSGESELLS [DE]
- "?Einführung in die Drucktechnik - Die verschiedenen Druckverfahren Modul 2.0", HEIDELBERGER DRUCKMASCHINEN, January 2001 (2001-01-01)
- ANATOMIE DES HOLZES, WAGENFÜHR, 1980, Leipzig, pages 97 - 99, 101-102 und 137
- ÜBERSETZUNG VON ?SHEET" INS DEUTSCHE UND VON ?PLATTE" INS ENGLISCHE, Retrieved from the Internet <URL:www.dict.leo.org>

Opponent : Robert Bürkle GmbH

- US 5178928 A 19930112 - GOTO HIDEO [JP], et al
- DE 19502389 A1 19960801 - BAUSCH AG [DE]
- DE 2421794 A1 19750424 - RELIANCE UNIVERSAL
- WO 0147724 A1 20010705 - PERSTORP FLOORING AB [SE]
- US 6326074 B1 20011204 - TAKAHASHI KAZUHIRO [JP]
- WO 0148333 A1 20010705 - PERSTORP FLOORING AB [SE]
- WO 9915325 A1 19990401 - WKP WUERTTEMBERGISCHE KUNSTOFF [DE], et al
- DE 4421559 A1 19951221 - OSMETRIC ENTWICKLUNGS UND PROD [DE], et al

Cited by

DE102016109361A1; EP2301762A1; DE102008052883B4; DE102010025159B4; DE102008049941B3; DE102008051211A1; FR3042426A1; CN106985563A; EP3611108A1; EP2050514A3; EP2181860A3; US2013177716A1; RU2716191C1; EP2314381A1; CN109433516A; DE102009004482A1; EP2251205A2; DE102008052883A1; WO2010037733A1; WO2008061791A1; WO2010079014A3; DE102015005495A1; WO2016174021A1; US8865267B2; US10406558B2; WO2017198550A1; EP2181860A2; EP2857221A1; EP2050514A2; EP2873535A1; EP3090882A1; DE102015107259A1

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DOCDB simple family (application)

DE 202004018710 U 20041202; EP 04028565 A 20041202; EP 10158405 A 20041202; EP 2005010796 W 20051005; ES 04028565 T 20041202; ES 10158405 T 20041202; PL 04028565 T 20041202; PL 10158405 T 20041202; RU 2007116965 A 20051005