

Title (en)

Process and apparatus for making cured coatings

Title (de)

Verfahren und Vorrichtung zur Herstellung von gehärteten Lackschichten

Title (fr)

Procédé et appareil pour faire des revêtements réticulés

Publication

EP 1002587 B1 20051109 (DE)

Application

EP 99121912 A 19991105

Priority

DE 19851139 A 19981105

Abstract (en)

[origin: EP1002587A2] A crosslinking reaction is initiated in a reactive paint formulation. This is coated-onto a surface at least locally, before reaction is completed. Independent claims are included for equipment carrying out the process, and for the coating so produced. The equipment employs a sprayer and/or electrostatic applicator with bell housing. Preferred features: Initiation of reaction preferably employs UV illumination (1), in conjunction with at least one photoinitiator in the formulation. Kinetics of the reaction are controlled by temperature variation, and/or by use of a sufficiently slowly-running reaction, especially a cationic polymerization, and/or by spatial separation of photoinitiator(s) from the formulation components and/or by minimizing reactivity of the photoinitiator(s). Spatial separation cited, is by nano-structuring of the paint formulation. Further stages include mixing a UV protection agent and/or pigment into the formulation before coating. A hand spray gun (6) applies the paint. In the equipment, optical fibers (3, 4) transmit UV light to the paint formulation.

IPC 1-7

B05D 3/06; B05D 3/00; B05B 17/04; B05C 9/10

IPC 8 full level

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CPC (source: EP US)

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Cited by

WO2011057786A1; DE102009052656A1; WO2013139851A1; US9339832B2; WO2004069427A1

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US 2002015799 A1 20020207; **US 6736898 B2 20040518**; AT E309054 T1 20051115; BR 9905157 A 20000912; CN 1258573 A 20000705; DE 19851139 A1 20000511; DE 59912761 D1 20051215; EP 1002587 A2 20000524; EP 1002587 A3 20031203; EP 1002587 B1 20051109; ES 2251812 T3 20060501; JP 2000185257 A 20000704; US 6344244 B1 20020205

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