

Title (en)

Process and apparatus for producing a structured coating surface and object having such a structured coating

Title (de)

Verfahren und Vorrichtung zum Erzeugen einer strukturierten Lackoberfläche sowie Werkstück mit einer strukturierten Lackoberfläche

Title (fr)

Procédé et appareil pour réaliser un revêtement à surface structurée et objet ayant un tel revêtement structuré

Publication

EP 1690602 A1 20060816 (DE)

Application

EP 06002353 A 20060206

Priority

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Abstract (en)

An outer layer(6) of radiation curable paint or varnish is applied onto a component surface(4). A pressure applicator(8) is pressed against the paint layer and the surface structure of the applicator is transferred onto the paint layer. Radiation for curing the paint is able to be transmitted through at least part of the pressure applicator. Curing of the paint layer progresses at least partly during contact between the pressure applicator and the paint layer. Paint or varnish(6) can be applied either as a transparent or colored layer. Curing is effected by electromagnetic radiation, in particular UV (ultra-violet) or IR (infra-red) radiation(16). Alternatively a varnish which can be cured with an electron beam is used. The pressure applicator(8) may be either: a) a roll(10) with the structured surface pattern, the outer jacket of the roll being transparent to radiation; b) an endless belt transparent to radiation and having a structured surface; c) a radiation transparent film with a structured surface in contact with the varnish layer. The film may be an endless loop which continuously circulates or is unwound from a roll before a pressure applicator and wound up again afterwards. A structured surface may be applied either continuously or intermittently to the component(2). A further coating, e.g. a colored varnish layer, plastic, laminate or non-varnish layer, may be applied to the component before applying the outer layer. Independent claims are included for: a) the process apparatus which includes a pressure applicator(8) with a structured surface and capable of transmitting radiation, a support(12) counteracting the pressure applicator, a radiation source(16) which directs radiation through at least part of the pressure applicator onto the outer paint layer(6); b) a pressure applicator comprising a member(10) with a structured surface and transparent to radiation; c) a component with a structured painted surface comprising a base material(2) with at least one surface(4) and an outer paint or varnish layer(6) which is mechanically produced and has a structure depression depth similar to the paint layer thickness in non-structured areas.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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