

Title (en)
Non-stick coating

Title (de)
Antihafbeschichtung

Title (fr)
Revêtement antiadhésif

Publication
EP 2492022 B1 20130313 (DE)

Application
EP 11155715 A 20110223

Priority
EP 11155715 A 20110223

Abstract (en)
[origin: EP2492022A1] Non-stick coating comprises at least three layers comprising: a cover layer (6) with a dry film thickness of 10-50 μm , preferably 20-30 μm , containing organic fluoropolymers or copolymers of tetrafluoroethylene, and poly(oxy-1,4-phenylenecarbonyl-1,4-phenylene); an intermediate layer (4) with a dry film thickness of 10-100 μm , preferably 20-30 μm , containing organic thermoplastic fluoropolymers, copolymers of tetrafluoroethylene, poly(oxy-1,4-phenylenecarbonyl-1,4-phenylene), and inorganic fillers (8); and a base layer (2) with a dry film thickness of 10-50 μm , preferably 20-30 μm . Non-stick coating comprises at least three layers comprising: a cover layer (6) with a dry film thickness of 10-50 μm , preferably 20-30 μm , containing (in %) organic fluoropolymers (40-90) including polytetrafluoroethylene (20-50, based on the cover layer) and copolymers of tetrafluoroethylene having perfluoroalkyl-vinyl ether with 1-3C in the alkyl group (20-70, based on the cover layer), preferably tetrafluoroethylene-perfluoromethyl vinyl ether copolymer (MFA) or tetrafluoroethylene-perfluoroalkyl vinyl ether copolymer (PFA), or copolymers of tetrafluoroethylene having hexafluoropropylene or its mixtures, and poly(oxy-1,4-phenylenecarbonyl-1,4-phenylene) (10-60); an intermediate layer (4) with a dry film thickness of 10-100 μm , preferably 20-30 μm , containing (in %) organic thermoplastic fluoropolymers (20-30) including copolymers of tetrafluoroethylene having perfluoroalkyl-vinyl ether with 1-3C in the alkyl group, preferably MFA or PFA, copolymers of tetrafluoroethylene having hexafluoropropylene or its mixtures, poly(oxy-1,4-phenylenecarbonyl-1,4-phenylene), and inorganic fillers (8) having particles exhibiting a size of 40-100 μm , preferably 45-70 μm ; and a base layer (2) with a dry film thickness of 10-50 μm , preferably 20-30 μm . The particle size of the inorganic fillers is selected such that at least some of the particles partially protrude into the cover layer, but do not penetrate the cover layer. An independent claim is also included for applying the non-stick coating, comprising applying the layers in the form of aqueous dispersions by wet application without intermediate drying, and then drying and melting.

IPC 8 full level
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CPC (source: EP)
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