

Title (en)
FLUORINE-MODIFIED POLYURETHANE RESINS CONTAINING ONE OR TWO CONSTITUENTS, METHOD FOR THE PRODUCTION THEREOF, AND USE OF THE SAME

Title (de)
FLUORMODIFIZIERTE EIN- ODER ZWEIKOMPONENTIGE POLYURETHANHARZE, VERFAHREN ZU IHRER HERSTELLUNG UND DEREN VERWENDUNG

Title (fr)
RESINES DE POLYURETHANNE MODIFIEES AU FLUOR A UN OU DEUX CONSTITUANTS, LEUR PROCEDE DE PRODUCTION ET LEUR UTILISATION

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Abstract (en)
[origin: WO2005007722A1] The invention relates to a fluorine-modified polyurethane resin containing one or two constituents and having improved surface properties. Said resin can be obtained by a) producing a fluorine-modified polyurethane prepolymer with free isocyanate groups or free amino groups and/or hydroxyl groups or a fluorine-modified polyol mixture with free hydroxyl groups (binding agent), and by b) producing a fluorine-modified polyurethane resin with a polymer-related fluorine content of between 1 and 4 wt. % in the entire system. According to the invention, the fluorine-modified polyurethane prepolymer from step a3) is reacted, in the event of a single-constituent application, with atmospheric humidity, or in the event of a double-constituent application, the fluorine-modified polyurethane prepolymer or polyol mixture (binding agent) is reacted with a cross-linking constituent (D) (hardener) and a formulation constituent (F), (ii) optionally in the presence of a solvent constituent (L)(iii) and a catalyst. By using suitable fluorinated macromonomers in the inventive single or double-constituent polyurethane resins, hard coating systems or surfaces with very low surface tensions and very high contact angles can be produced. Said polyurethane resins also have a significantly reduced soiling tendency in relation to prior art.

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