

Title (en)  
BINDING AGENTS HAVING BARRIER PROPERTIES

Title (de)  
BINDEMITTEL MIT BARRIERE-EIGENSCHAFTEN

Title (fr)  
LIANT A PROPRIETES BARRIERE

Publication  
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Application  
**EP 04765281 A 20040916**

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Abstract (en)  
[origin: WO2005033240A1] The invention relates to binding agents having barrier properties, containing: a) a compound having at least one NCO group and at least one reactive functional group, which can be cured by radiation and which serves as component (A), and; b) a silicon-organic compound serving as component (B) with at least one NCO group and at least one functional group of formula (I):  $-\text{Si}(\text{X})_3-\text{n}$ , in which X represents  $-\text{NH}_2$ ;  $-\text{NH}-\text{CO}-\text{R}$ ;  $-\text{OOC}-\text{R}$ ;  $-\text{O}-\text{N}=\text{C}(\text{R})_2$  or  $\text{OR}'$ ; R represents a linear or branched, saturated or unsaturated C1-C18 alkyl radical, preferably a methyl, ethyl, propyl or isopropyl radical; R' represents R, preferably a methyl, ethyl, propyl or isopropyl radical or an oxyalkylene radical having up to 4 C atoms, preferably  $-(\text{C}_2\text{H}_4-\text{O})_m-\text{H}$  and/or  $(\text{CH}_2-\text{CH}(\text{CH}_3)-\text{O})_m-\text{H}$ , a C5-C8 cycloalkyl radical; a C6-C10 aryl radical or a C7-C12 aralkyl radical; m equals 1 to 40, preferably 1 to 20, particularly preferred 1 to 10; n equals 0, 1 or 2. The binding agent is used as a radiation curable binding agent in coating agents, fillers, sealants or adhesives. The invention also relates to a method for producing laminated films having barrier properties with regard to  $\text{CO}_2$ ,  $\text{O}_2$ ,  $\text{N}_2$ , water vapor and flavoring agents while using the inventive binding agent, and to the laminated films produced according to said method.

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