

Title (en)
ANIONIC MODIFIED POLYURETHANE DISPERSIONS

Title (de)
ANIONISCH MODIFIZIERTE POLYURETHANDISPERSIONEN

Title (fr)
DISPERSIONS DE POLYURÉTHANE MODIFIÉES ANIONIQUEMENT

Publication
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Application
EP 09744350 A 20091031

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• EP 08019883 A 20081114
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Abstract (en)
[origin: EP2186840A1] Aqueous polyurethane urea dispersions comprise a polyurethane urea polymer (I), which is derived from (a) at least one aromatic diisocyanate, (b) at least one polyether polyol having a number average molecular weight of 300-1500 Da, (c) at least one compound having one or two isocyanate groups and at least one ionic group, (d) at least one polyol having a number average molecular weight of 60-499 Da and (e) water. The average total functionality of the isocyanate reactive compounds (b) to (d) amounts to 1.85-2.2. Aqueous polyurethane urea dispersions comprise a polyurethane urea polymer of formula (CH₃-O-C(=O)-NH-Ar-1>-NH-C(=O)-NH-Ar-1>-NH-C(=O)-O-CH₃) (I), which is derived from (a) at least one aromatic diisocyanate, (b) at least one polyether polyol having a number average molecular weight of 300-1500 Da, (c) at least one compound having one or two isocyanate groups and at least one ionic group, (d) at least one polyol having a number average molecular weight of 60-499 Da and (e) water. The average total functionality of the isocyanate reactive compounds (b) to (d) amounts to 1.85-2.2 and in the polyurethane urea polymer, the sum of the content of aromatic urea groups and the content of urethane groups amounts to 2700-5000 mmol/kg polyurethane urea polymer. Ar-1>: phenylene, tolylene, xylylene, tetramethyl xylylene or diphenylmethane. Independent claims are also included for: (1) preparing the aqueous polyurethane urea dispersions, comprising completely or partially providing the components (a), (b), (c) and (d) into the reactor and optionally diluting with a solvent miscible with water but inert against isocyanate groups and heating to 50-120[deg] C and adding the remaining portions of the components (a)-(d) to start the reaction and neutralizing with a neutralizing agent before or during the dispersion and distilling the optionally used organic solvent; and (2) an adhesive compound made of one or more substrate(s) and an adhesive layer comprising the polyurethane urea dispersions.

IPC 8 full level
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CPC (source: EP KR US)
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C-Set (source: EP US)
C08G 18/12 + **C08G 18/302**

Citation (search report)
See references of WO 2010054761A1

Citation (examination)
WO 0142327 A1 20010614 - SKW BAUCHEMIE GMBH [DE], et al

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