

Title (en)  
METHOD FOR PRODUCING POLYURETHANE PREPOLYMERS

Title (de)  
VERFAHREN ZUR HERSTELLUNG VON POLYURETHAN-PREPOLYMEREN

Title (fr)  
PROCEDE DE FABRICATION DE PREPOLYMERES DE POLYURETHANNE

Publication  
**EP 1732966 A1 20061220 (DE)**

Application  
**EP 05728218 A 20050303**

Priority

- EP 2005002205 W 20050303
- DE 102004018048 A 20040408

Abstract (en)  
[origin: WO2005097861A1] The invention relates to a method for producing polyurethane prepolymers with terminal isocyanate groups, wherein polyisocyanates are reacted with a polyols, consisting (I) in preparing, at a first synthesis stage, a component (A) by using a) a polyisocyanate (X) in the form of at least one type of asymmetrical polyisocyanate, preferably of a toluylendiisocyanate group (TDI) whose content in 2,4-TDI is  $\geq 99$  % by weight; 2,4-diphenylmethandiisocyanate content in 2,4'-isomer is equal to or greater than 95 % by weight, preferably 97 % by weight, b) a polyol in the form of at least one type of polyol whose average molecular weight ( $M_n$ ) ranges from 60 to 3000 g/mol, c) at a hydroxyl/isocyanate groups ratio  $< 1$ , preferably ranging between 0.4 and 1, d) when necessary, in adding a catalyst and, after the reaction of all hydroxyl groups at a second synthesis stage, in adding (II) the other polyol of the component (A), wherein the reaction ratio of the hydroxyl groups of the other polyol/isocyanate groups of the component (A) ranges from 1.1:1 to 2.0:1, preferably from 1.3:1 to 1.8:1, more particularly from 1.45:1 to 1.75:1. The thus produced polyurethane prepolymers are suitable for producing two-component adhesive and sealing agents, in particular laminating adhesives. The polyurethane prepolymers produced according to the inventive method exhibit a low-viscosity and a low-monomer content.

IPC 8 full level  
**C08G 18/12** (2006.01); **C08G 18/40** (2006.01); **C08G 18/66** (2006.01); **C08G 18/72** (2006.01); **C08G 18/76** (2006.01); **C08G 18/79** (2006.01); **C09J 175/04** (2006.01)

CPC (source: EP US)  
**C08G 18/12** (2013.01 - EP US); **C08G 18/6607** (2013.01 - EP US); **C08G 18/797** (2013.01 - EP US); **C09J 175/04** (2013.01 - EP US)

Citation (search report)  
See references of WO 2005097861A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005097861 A1 20051020**; BR PI0509703 A 20070918; CN 1938353 A 20070328; CN 1938353 B 20110427; DE 102004018048 A1 20051110; EP 1732966 A1 20061220; US 2007129525 A1 20070607

DOCDB simple family (application)  
**EP 2005002205 W 20050303**; BR PI0509703 A 20050303; CN 200580010727 A 20050303; DE 102004018048 A 20040408; EP 05728218 A 20050303; US 53972806 A 20061009