

Title (en)  
USE OF ADHESIVE TAPES FOR BONDING OPTICAL COMPONENTS

Title (de)  
VERWENDUNG VON HAFTKLEBEBÄNDERN ZUR VERKLEBUNG OPTISCHER BAUTEILE

Title (fr)  
UTILISATION DE RUBANS ADHÉSIFS POUR COLLER DES COMPOSANTS OPTIQUES

Publication  
**EP 2449048 A1 20120509 (DE)**

Application  
**EP 10727390 A 20100618**

Priority  
• EP 2010058607 W 20100618  
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Abstract (en)  
[origin: WO2011000716A1] Method for bonding optical components by means of an adhesive tape, characterized in that the adhesive tape comprises at least one layer of a pressure-sensitive adhesive compound on basis of a polyacrylate having a weight-averaged molecular weight  $M_w$  in the range of  $200000 = M_w = 1000000$  g/mol, which can be obtained by radical copolymerization of at least the following components: (a) 55 to 92% by weight of one or more acryl monomers of the general formula  $CH_2=CH-COOR_1$ , where  $R_1$  is a hydrocarbon group having 4 to 14 carbon atoms, (b) 5 to 30% by weight of one or more copolymerizable monomers, wherein the glass transition temperature  $T_{G,bH}$  of the homopolymer from the monomer of the component (b) is no less than  $0^\circ C$ , or wherein the glass transition temperature  $T_{G,bH}$  of the copolymer from the monomers of the component (b) is no less than  $0^\circ C$ , (c) 3 to 15% by weight of one or more copolymerizable monomers promoting a cross-linking reaction of the polyacrylate, wherein the polyacrylate is cross-linked, wherein the cross-linked polyacrylate is characterized by a loss factor ( $\tan \delta$  value) ranging between 0.2 and 0.4, wherein the cross-linked polyacrylate has a shear strength characterized by a maximum deflection  $X_{max}$  in the microshear travel test of 200 to 600  $\mu m$ , and wherein the cross-linked polyacrylate is characterized by an elastic portion in the polyacrylate of at least 60%.

IPC 8 full level  
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CPC (source: EP KR US)  
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Citation (search report)  
See references of WO 2011000716A1

Citation (examination)  
"Polymer Products from Aldrich Thermal Transitions of Homopolymers: Glass Transition & Melting Point", 1 January 2013 (2013-01-01), pages 52 - 53, XP055117588, Retrieved from the Internet <URL:http://www.sigmaaldrich.com/img/assets/3900/Thermal\_Transitions\_of\_Homopolymers.pdf> [retrieved on 20140513]

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