

Title (en)

HIGH PERFORMANCE PHOTOCURABLE OPTICALLY CLEAR ADHESIVE

Title (de)

HOCHLEISTUNGSFÄHIGER PHOTOHÄRTBARER OPTISCH KLARER KLEBSTOFF

Title (fr)

ADHÉSIF OPTIQUEMENT TRANSPARENT, PHOTODURCISSABLE, TRÈS PERFORMANT

Publication

EP 3589710 A1 20200108 (EN)

Application

EP 18712743 A 20180227

Priority

- US 201762466649 P 20170303
- US 2018019958 W 20180227

Abstract (en)

[origin: WO2018160564A1] The present invention is an optically clear, curable adhesive including a polyvinylbutyral, a polyurethane (meth)acrylate, and a photoinitiator. The polyvinylbutyral has a dynamic viscosity of between about 9 and about 13 mPa·s and a polyvinyl alcohol weight percent of less than about 18%. The polyurethane (meth)acrylate includes the reaction product of a diol, at least one diisocyanate, and a hydroxyfunctional (meth)acrylate or an isocyanatofunctional (meth)acrylate. When the optically clear, curable adhesive is placed between two transparent substrates and made into a laminate, the laminate has a haze of less than about 6%, a transmission of greater than about 88% and an optical clarity of greater than about 98% when cured. The optically clear, curable adhesive also has a peel adhesion of at least about 100 g/cm based on ASTM 3330 when cured.

IPC 8 full level

C09J 4/06 (2006.01); **B32B 27/32** (2006.01)

CPC (source: EP US)

B32B 7/12 (2013.01 - EP US); **B32B 17/10** (2013.01 - EP US); **B32B 17/10706** (2013.01 - EP US); **B32B 17/10761** (2013.01 - EP US);
B32B 17/1077 (2013.01 - EP US); **B32B 23/04** (2013.01 - EP); **B32B 23/06** (2013.01 - EP); **B32B 23/08** (2013.01 - EP);
B32B 23/20 (2013.01 - EP); **B32B 27/06** (2013.01 - EP); **B32B 27/08** (2013.01 - EP); **B32B 27/10** (2013.01 - EP); **B32B 27/306** (2013.01 - EP);
B32B 27/308 (2013.01 - EP); **B32B 27/32** (2013.01 - EP); **B32B 27/36** (2013.01 - EP); **B32B 27/365** (2013.01 - EP); **B32B 27/40** (2013.01 - EP);
B32B 29/002 (2013.01 - EP); **C08F 261/12** (2013.01 - EP); **C08F 299/065** (2013.01 - EP); **C08G 18/10** (2013.01 - EP);
C08G 18/246 (2013.01 - EP); **C08G 18/4277** (2013.01 - EP); **C08G 18/4808** (2013.01 - EP); **C08G 18/4825** (2013.01 - EP);
C08G 18/4854 (2013.01 - EP); **C08G 18/722** (2013.01 - EP); **C08G 18/73** (2013.01 - EP); **C08G 18/755** (2013.01 - EP);
C08G 18/757 (2013.01 - EP); **C08G 18/758** (2013.01 - EP); **C08G 18/8116** (2013.01 - EP); **C09J 4/06** (2013.01 - EP US);
C09J 129/14 (2013.01 - US); **C09J 175/14** (2013.01 - US); **B32B 2250/02** (2013.01 - EP); **B32B 2255/10** (2013.01 - EP);
B32B 2255/26 (2013.01 - EP US); **B32B 2307/412** (2013.01 - EP US); **B32B 2307/748** (2013.01 - EP); **B32B 2419/00** (2013.01 - EP);
B32B 2451/00 (2013.01 - EP); **B32B 2457/20** (2013.01 - EP); **B32B 2457/202** (2013.01 - EP); **B32B 2457/206** (2013.01 - EP);
B32B 2457/208 (2013.01 - EP); **B32B 2551/00** (2013.01 - EP); **B32B 2605/00** (2013.01 - EP); **B32B 2605/006** (2013.01 - EP);
C09J 2301/416 (2020.08 - US)

Citation (search report)

See references of WO 2018160564A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2018160564 A1 20180907; EP 3589710 A1 20200108; JP 2020512439 A 20200423; TW 201837145 A 20181016

DOCDB simple family (application)

US 2018019958 W 20180227; EP 18712743 A 20180227; JP 2019547701 A 20180227; TW 107106916 A 20180302