

Title (en)  
Paper making shoe press belt

Title (de)  
Schuhpressband zur Papierherstellung

Title (fr)  
Courroie de presse à sabot pour la fabrication de papier

Publication  
**EP 2623667 A1 20130807 (EN)**

Application  
**EP 13000525 A 20130201**

Priority  
JP 2012020045 A 20120201

Abstract (en)  
A paper making shoe press belt includes a reinforcing fiber substrate (6) and a polyurethane laminate. The reinforcing fiber substrate (6) is embedded in at least one layer (21, 22) of the polyurethane laminate. At least one layer (21, 22) of the polyurethane laminate includes a polyurethane obtained by heat-curing a urethane prepolymer together with a mixed curing agent. The urethane prepolymer includes a terminal isocyanate group and is obtained by reacting a diisocyanate compound and a long-chain polyol. The diisocyanate compound includes at least one of toluene-diisocyanate, diphenylmethane-diisocyanate, and paraphenylene-diisocyanate. The mixed curing agent includes 70-99.5 mol % of dimethylthiotoluenediamine and 0.5-30 mol% of a curing agent. The curing agent includes at least one of 4,4'-methylenebis(2,6-diethyl-3-chloroaniline), 4,4'-methylenedianiline, and 1,4-butanediol. An equivalent ratio of active hydrogen groups of the mixed curing agent to isocyanate groups of the urethane prepolymer is from 1.02 to 1.15.

IPC 8 full level  
**D21F 3/02** (2006.01)

CPC (source: EP US)  
**D21F 3/0227** (2013.01 - EP US)

Citation (applicant)  
• JP H11247086 A 19990914 - ICHIKAWA WOOLEN TEXTILE  
• JP 3698984 B2 20050921  
• US 7374641 B2 20080520 - WATANABE ATSUO [JP], et al  
• EP 0855414 A1 19980729 - AIR PROD & CHEM [US]  
• JP 3803106 B2 20060802  
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• JP H07292237 A 19951107 - BANDO CHEMICAL IND  
• JP H10212333 A 19980811 - AIR PROD & CHEM  
• "Polyfile", ETHACURE, vol. 300, January 1999 (1999-01-01), pages 37 - 38  
• "The effect of curative on the fracture toughness of PTMEG/TDI polyurethane elastomers", POLYMER, vol. 36, 1995, pages 767 - 774  
• "The effect of curative on the fracture toughness of PTMEG/TDI polyurethane elastomers", POLYMER, vol. 36, 1995, pages 767 - 774

Citation (search report)  
• [X] EP 2169112 A1 20100331 - ICHIKAWA CO LTD [JP]  
• [X] EP 2284314 A1 20110216 - ICHIKAWA CO LTD [JP]  
• [X] EP 1338696 A1 20030827 - YAMAUCHI CORP [JP]

Designated contracting state (EPC)  
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Designated extension state (EPC)  
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DOCDB simple family (application)  
**EP 13000525 A 20130201**; CN 201310041248 A 20130201; JP 2012020045 A 20120201; US 201213541907 A 20120705