

Title (en)

HEAT INSULATING TEXTILE COMPLEX

Title (de)

KOMPLEXES TEXTILMATERIAL ZUR ANWENDUNG ALS WÄRMEDÄMMUNG

Title (fr)

COMPLEXE TEXTILE POUR ISOLATION THERMIQUE

Publication

**EP 1441613 B1 20061220 (FR)**

Application

**EP 02796838 A 20021107**

Priority

- FR 0203804 W 20021107
- FR 0114573 A 20011107

Abstract (en)

[origin: WO03039281A1] The invention concerns a textile complex for thermal insulation characterized in that one of the walls (P1) at least, in particular the wall designed to be first subjected to heat, is designed to retract under the effect of heat to simultaneously straighten the connecting fibers (F) corresponding to an increase of the spacing between said walls (P1 and P2) designed to be entirely or partly heat-stable.

IPC 8 full level

**A41D 31/00** (2006.01); **A41D 13/00** (2006.01); **A62B 17/00** (2006.01); **A41D 31/02** (2006.01); **B32B 5/14** (2006.01); **D03D 1/00** (2006.01);  
**D03D 11/00** (2006.01); **D03D 15/00** (2006.01); **D03D 15/12** (2006.01)

CPC (source: EP US)

**A41D 31/065** (2019.02 - EP US); **D10B 2331/021** (2013.01 - EP US); **Y10T 442/3187** (2015.04 - EP US); **Y10T 442/3472** (2015.04 - EP US);  
**Y10T 442/3976** (2015.04 - EP US); **Y10T 442/456** (2015.04 - EP US); **Y10T 442/488** (2015.04 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

**WO 03039281 A1 20030515**; AT E348541 T1 20070115; AU 2002361312 B2 20070802; BR 0214063 A 20041013; BR 0214063 B1 20121127;  
CA 2464718 A1 20030515; CA 2464718 C 20100420; CN 1578633 A 20050209; DE 60216957 D1 20070201; DE 60216957 T2 20071018;  
DK 1441613 T3 20070410; EP 1441613 A1 20040804; EP 1441613 B1 20061220; ES 2279000 T3 20070816; FR 2831772 A1 20030509;  
FR 2831772 B1 20040702; HU P0402008 A2 20080929; JP 2005507469 A 20050317; JP 4319912 B2 20090826; NO 20041864 D0 20040506;  
NO 20041864 L 20040607; NZ 532393 A 20051028; PT 1441613 E 20070330; US 2005070189 A1 20050331

DOCDB simple family (application)

**FR 0203804 W 20021107**; AT 02796838 T 20021107; AU 2002361312 A 20021107; BR 0214063 A 20021107; CA 2464718 A 20021107;  
CN 02821592 A 20021107; DE 60216957 T 20021107; DK 02796838 T 20021107; EP 02796838 A 20021107; ES 02796838 T 20021107;  
FR 0114573 A 20011107; HU P0402008 A 20021107; JP 2003541386 A 20021107; NO 20041864 A 20040506; NZ 53239302 A 20021107;  
PT 02796838 T 20021107; US 49479804 A 20040527