

Title (en)

Recovery of fibres from bonded nonwovens

Title (de)

Wiedergewinnung von Fasern aus gebundenen Faservliesen

Title (fr)

Récupération de fibres provenant de non-tissés liés

Publication

**EP 0807704 B1 20001102 (DE)**

Application

**EP 97107491 A 19970507**

Priority

DE 19619639 A 19960515

Abstract (en)

[origin: EP0807704A1] A method for removing a polymer binder containing carboxylate groups cross-linked via alkaline earth metal ions from impregnated nonwovens comprises: (1) the nonwoven is treated with an aqueous alkali salt solution so that the alkali salt anions combine with the alkaline earth metal cations to form a poorly soluble salt or chelate; and (2) the binder-free fibres are separated. Preferably a phase transfer catalyst, preferably an alkyl phenol ethoxylate, fatty alcohol ethoxylate, oxo alcohol ethoxylate or quat. organic ammonium salt, is used in the alkali salt solution. Calcium ions are the cations present. The binder comprises a radical-polymerised polymer containing 0.1-30 wt.% carboxylate groups, of which 50-100 wt.% are present as salts containing alkaline earth metal cations. The alkali salt solution has a temperature of 10-100 degrees C. The nonwoven is added to the alkali salt solution, which is then optionally stirred before separating the fibres 1-60 minutes later.

IPC 1-7

**D04H 1/64**

IPC 8 full level

**D04H 1/435** (2012.01); **D04H 1/587** (2012.01); **D04H 1/64** (2006.01); **D04H 1/645** (2012.01); **D04H 3/011** (2012.01); **D04H 3/12** (2006.01)

CPC (source: EP US)

**D04H 1/435** (2013.01 - EP US); **D04H 1/587** (2013.01 - EP US); **D04H 1/645** (2013.01 - EP US); **D04H 3/011** (2013.01 - EP US); **D04H 3/12** (2013.01 - EP US); **Y10S 260/31** (2013.01 - EP US); **Y10S 260/43** (2013.01 - EP US)

Cited by

US5935880A; US6043317A; US6194517B1; US6695993B2; US6423804B1; WO9844181A1; US6291372B1; US6277768B1; US6451429B2; WO9853006A1

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