

Title (en)
Water-decomposable non-woven fabric

Title (de)
In Wasser abbaubares Vlies

Title (fr)
Non-tissé décomposable dans l'eau

Publication
EP 0608460 B1 19980909 (EN)

Application
EP 93101388 A 19930129

Priority
EP 93101388 A 19930129

Abstract (en)
[origin: EP0608460A1] A water-decomposable non-woven fabric comprises a water-dispersible fiber layer, each fiber of which is bound with one another using a water-soluble binder comprising an unsaturated carboxylic acid/unsaturated carboxylic acid ester copolymer in which 1 to 60 mole % of the repeating units derived from the unsaturated carboxylic acid is in the form of a salt and which is soluble in tap water but is insoluble in an aqueous solution containing not less than 0.5 % by weight of a neutral inorganic salt comprising a monovalent ion; the water-dispersible fiber layer being composed of a mixture of 40 to 90 % by weight of fibers having a crimp number of 19/inch or less, 10 to 60 % by weight of fibers having a crimp number of 20/inch to 25/inch, and not more than 10 % by weight of fibers having a crimp number of 26/inch or more; and a content of the binder in the non-woven fabric being 1 to 30 % by weight relative to the total weight of the non-woven fabric. The non-woven fabric has a good feeling (high softness and good touch) and sufficient mechanical strength, and can be easily broken and dispersed by throwing into a large amount of water.

IPC 1-7
D04H 1/64; D04H 1/42

IPC 8 full level
D04H 1/42 (2006.01); **D04H 1/425** (2012.01); **D04H 1/4258** (2012.01); **D04H 1/49** (2012.01); **D04H 1/50** (2012.01); **D04H 1/64** (2006.01)

CPC (source: EP US)
D04H 1/425 (2013.01 - EP); **D04H 1/4258** (2013.01 - EP); **D04H 1/43835** (2020.05 - EP US); **D04H 1/43918** (2020.05 - EP US);
D04H 1/49 (2013.01 - EP); **D04H 1/50** (2013.01 - EP); **D04H 1/64** (2013.01 - EP)

Cited by
US10973384B2; US5986004A; US5972805A; CN105442179A; GB2361924A; GB2361924B; GB2376695A; GB2376695B; DE102005029597A1; AU750632B2; US6194517B1; US9528210B2; US10113254B2; US6423804B1; US7329705B2; US7670967B2; WO0038751A1; WO2006073555A1; WO9832906A1; US6291372B1; US7173085B2; US7884037B2; WO2015011701A1; US9945056B2; US9005395B1; US9320395B2; US9453304B2; US9809931B2; EP1886700A2; US6277768B1; US6451429B2; US7989545B2; US8232345B2; US9439549B2; US7320831B2; US9005738B2; US9314142B2; US9661974B2; US10045677B2; US10405724B2

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