

## Title (en)

Mix of cellulose wadding and plant and animal fibres, manufacturing method and thermal insulating material

## Title (de)

Mischung aus Zellulosewatte und Pflanzen- oder Tierfasern, Herstellungsverfahren und Wärmedämmmaterial

## Title (fr)

Mélange de ouate de cellulose et de fibres végétales ou animales, procédé de fabrication et matériau isolant thermique

## Publication

**EP 2204483 A3 20111130 (FR)**

## Application

**EP 09172212 A 20091005**

## Priority

FR 0856859 A 20081010

## Abstract (en)

[origin: EP2204483A2] The bulk material comprises a stabilized mixture of absorbent cellulose cotton and vegetable or animal fibers, flame retardant additives, and bactericidal-, antifungal- and/or insecticidal agent. The cellulose cotton is present in the form of small particles having an average size of lower than 2 mm. The weight ratio of cellulose cotton is 1/2, with respect to the total weight ratio of the cotton and fibers. The vegetable or animal fibers have an average length of 3-6 cm. The length of the mini-fibers of cellulose cotton is lower than 2 mm. The bulk material comprises a stabilized mixture of absorbent cellulose cotton and vegetable or animal fibers, flame retardant additives, and bactericidal-, antifungal- and/or insecticidal agent. The cellulose cotton is present in the form of small particles having an average size of lower than 2 mm. The weight ratio of cellulose cotton is 1/2, with respect to the total weight ratio of the cotton and fibers. The vegetable or animal fibers have an average length of 3-6 cm. The length of the mini-fibers of cellulose cotton is lower than 2 mm. The material has a density of 20-120 kg/m<sup>3</sup>, a thermal conductivity of 0.040 W/Km and a phase time of 10 hours, and is mixed with a binder consisting of molten synthetic fibers based on polyester coated with polyethylene or polypropylene, which is melted at a temperature lower than that of the polyester, where the weight ratio of the binder is 18-25% compared to the total weight of the material. An independent claim is included for a process for fabricating a bulk material.

## IPC 8 full level

**D04H 1/00** (2006.01); **D04H 1/42** (2012.01); **D04H 1/425** (2012.01); **D04H 1/4266** (2012.01); **D04H 1/542** (2012.01); **D04H 1/544** (2012.01); **D04H 1/55** (2012.01); **D04H 1/58** (2012.01); **D04H 1/70** (2012.01); **D04H 1/74** (2006.01)

## CPC (source: EP US)

**D04H 1/02** (2013.01 - EP); **D04H 1/425** (2013.01 - EP); **D04H 1/4258** (2013.01 - EP); **D04H 1/4266** (2013.01 - EP); **D04H 1/4291** (2013.01 - EP); **D04H 1/435** (2013.01 - EP); **D04H 1/43835** (2020.05 - EP US); **D04H 1/542** (2013.01 - EP); **D04H 1/544** (2013.01 - EP); **D04H 1/55** (2013.01 - EP); **D04H 1/58** (2013.01 - EP); **D04H 1/70** (2013.01 - EP); **D04H 1/74** (2013.01 - EP); **E04C 2/16** (2013.01 - EP)

## Citation (search report)

- [X] US 5910367 A 19990608 - KEAN TOD MITCHELL [US], et al
- [X] EP 0970674 A2 20000112 - FROME DEVELOPMENTS LIMITED [IE]
- [X] US 2004054331 A1 20040318 - HAMILTON WENDY L [US], et al
- [X] US 5491186 A 19960213 - KEAN JAMES H [US], et al
- [L] US 5516580 A 19960514 - FRENETTE DANIEL [CA], et al

## Cited by

WO2024013251A1; IT202000005446A1; ITB120120004A1; FR3137930A1; CN114555876A

## Designated contracting state (EPC)

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## Designated extension state (EPC)

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**FR 2937057 A1 20100416; FR 2937057 B1 20101210; EP 2204483 A2 20100707; EP 2204483 A3 20111130**

## DOCDB simple family (application)

**FR 0856859 A 20081010; EP 09172212 A 20091005**