

Title (en)

Breathable buoyant thermal insulating material.

Title (de)

Luftdurchlässiges, schwimmfähiges, thermisches Isoliermaterial.

Title (fr)

Matériau isolation thermique perméable à l'air et flottant.

Publication

**EP 0600843 A1 19940608 (EN)**

Application

**EP 93850063 A 19930331**

Priority

US 98509692 A 19921130

Abstract (en)

This invention concerns a novel breathable, buoyant, thermal insulator material. The insulator material of the invention comprises an assemblage of: (a) from about 50 to 100% by weight of spun and drawn polymeric microfibers having a diameter of from about 2 to 14 microns; and (b) from about 0 to 50% by weight of synthetic polymeric binder fibers having a diameter of from about 12 to 50 microns, wherein the resulting assemblage has a density of from about 3.0 to 10.0 lb/ft<sup>3</sup>, and apparent thermal conductivity k measured by the plate to plate method according to ASTM C518 with a heat flow down of less than about 0.3 Btu.in/hr.ft<sup>2</sup>. DEG F in the dry condition, water absorption less than 50% of its dry weight when immersed for one hour at a depth of 2 ft. in fresh water at a temperature of 70 DEG F, a buoyancy greater than 40 lb/ft<sup>3</sup> after immersion for one hour at a depth of 2 ft. in fresh water at a temperature of 70 DEG F, and an intrinsic moisture vapor transfer rate of at least 100 times greater than that of a closed-cell foam according to Military Specification MIL-P-12420C, Type II, Class 6. <IMAGE>

IPC 1-7

**D04H 1/54; D04H 1/42**

IPC 8 full level

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Citation (search report)

- [A] EP 0088191 A2 19830914 - ICI PLC [GB]
- [A] US 4508775 A 19850402 - ADILETTA JOSEPH G [US]
- [A] DATABASE WPI Section Ch Week 68, Derwent World Patents Index; Class A, AN 68-42208Q

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DOCDB simple family (publication)

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DOCDB simple family (application)

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