Title (en)

METHOD FOR MAKING A QUASI-INCOMPRESSIBLE PHASE-CHANGE MATERIAL WITH LOW THERMAL CONDUCTIVITY, AND RESULTING PRODUCT

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES QUASI-INKOMPRESSIBLEN PHASENWECHSELMATERIALS MIT GERINGER THERMISCHER LEITFÄHIGKEIT UND PRODUKT ERHALTEN AUS DIESEM VERFAHREN

Title (fr)

PROCEDE POUR FABRIQUER UN MATERIAU A CHANGEMENT DE PHASE QUASI-INCOMPRESSIBLE ET A FAIBLE CONDUCTIVITE THERMIQUE, ET PRODUIT OBTENU PAR LE PROCEDE

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Abstract (en)

[origin: WO0188057A1] The invention concerns a method for making a quasi-incompressible phase-change material (PCM) having low thermal conductivity, the resulting products and their uses. The method consists in combining with a phase-change material (PCM) in liquid state a thickening agent selected to reduce significantly thermal convection, the formed material having, depending on the combinations performed, a gelled structure or a colloidal dispersed system. The PCM consists of a mixture of chemical compounds of the family of alkanes, paraffins, waxes, fatty alcohols, fatty acids and the like, and the thickening agent can be organic (aromatic ureas), organometallic (alkaline or alkaline-earth soaps) or purely inorganic (silica, silico-aluminates such as bentonite made oleophilic). The invention is useful for thermal isolation of containers or ducts, and in particular for thermal insulation of hydrocarbon ducts.

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