Title (en)

THERMAL INSULATING COATING EMPLOYING MICROENCAPSULATED PHASE CHANGE MATERIAL AND METHOD

Title (de)

WÄRMEISOLATIONSBESCHICHTUNG MIT VERWENDUNG VON MIKROGEKAPSELTEM PHASENVERÄNDERUNGSMATERIAL UND VERFAHREN

Title (fr)

REVETEMENT D'ISOLATION THERMIQUE UTILISANT UN MATERIAU A CHANGEMENT DE PHASE MICROENCAPSULE ET PROCEDE ASSOCIE

Publication

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Application

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Priority

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Abstract (en)

[origin: CA2286011A1] A method of insulating a substrate from repeated thermal transients and/or thermal impulses applied thereto by proximately absorbing and storing the thermal transients and/or thermal impulses for subsequent removal by radiation. According to the method, a coating (10) is placed in energy absorbing contacting relation with the substrate. The coating (10) includes a base material (20) and a plurality of microcapsules (30) dispersed within the base material (20). The microcapsules (30) may be dispersed throughout the base material (10) and may be submerged therein so that they are substantially space apart from one another. The microcapsules (30) contain a thermal energy absorbing material (40), for example, a phase change material such as a paraffinic hydrocarbons or alternatively, plastic crystals. Articles of manufacture may be produced according to the present invention which employ the above described coating.

IPC 1-7 (main, further and additional classification)

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IPC 8 full level (invention and additional information)

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