

ductility. X-ray photoelectron spectroscopy showed the presence of aluminum carbide in the hot pressed samples.

Thus, the aluminum based material reinforced with carbon nanostructures should be appropriate for creating high-strength and light compacts for aerospace and automotive applications and power engineering.

DEVELOPMENT OF LATENT HEAT STORAGE PCM CONTAINING PLASTER

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This paper reviews the development of latent heat storage Phase Change Material (PCM) containing plaster as in passive application. Due to the phase change, these materials can store higher amounts of thermal energy than traditional building materials and can be used to add thermal inertia to a lightweight. It was shown that the use of PCMs have advantages for cooling demand and building applications stabilizing the room temperature variations during summer days, provided sufficient night ventilation is allowed. Another advantage of PCM usage is stabilized indoor temperature on the heating season. The goal of this study is to develop cement and lime based plaster containing microencapsulated PCM. The plaster is expected to be used for passive indoor applications and enhance the thermal properties of building envelope. The plaster was investigated under Scanning Electron Microscope and the mechanical, physical and thermal properties of created plaster samples were determined.