

عنوان مقاله:

Experimental study on compressive strength of resin-epoxy composite reinforced with shape memory alloy fiber under static load and assessment of some effective parameters

محل انتشار:

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خلاصه مقاله:

Based on the technology advancement and also considering the growing need to find new materials that not only can decrease the request but also are economically affordable, the request for composite materials is rising. Not only they have the usual properties of common materials but also by having better ratio of Strength to weight, it is believed that they can endure much harder conditions. To further increase the compressive strength of these kinds of material in addition to change the matrix or fillers, it is possible to use particles or fibers of shape memory alloys (SMA) in their composition. In this experimental research compressive strength of resin-epoxy composite reinforced with Ni-Ti SMA wires under static loading is studied. Important parameters in this research are volume fraction of the SMAs and diversity in their pre-strain. According to the results, the optimal condition is concluded

کلمات کلیدی:

Composite, SMA wire, Compressive strength, Static loading, Pre-strain

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