

## عنوان مقاله:

Design and manufacturing of new a fire retardant coating system for polymer composites

## محل انتشار:

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## خلاصه مقاله:

The purpose of this study is manufacturing of a coating system for protecting polymer composites against the direct flame. The main effort was focused on production of an optimum composition for the coating system which is also supposed to reduce the amount of heat transfer to the composite substrate. Moreover, it is worth mentioning that the temperature of the rear of the coated surface of composites should not exceed of 125 in 30 minutes. Investigations have been done for two systems; water based and resin based coating systems. Fire tests results illustrated that the resin based coating systems have a higher resistance than the water based one. The resin based coating system consists of intumescent and metal hydroxide coating systems. Fire tests have been done for three coating systems; intumescent coating system, metal hydroxide coating system and a combination these two systems. Results revealed that the combination of the two coating systems (made of intumescent and metal hydroxide coating systems) has the best performance against fire.

## کلمات کلیدی:

Fire, Polymer composites, Fire retardant coating, Fire-resistant material

## لینک ثابت مقاله در پایگاه سیویلیکا:

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