

## عنوان مقاله:

Creep Behavior of Basalt and Glass Fiber Reinforced Epoxy Composites

## محل انتشار:

دومین کنفرانس بین المللی کامپوزیت (سال: 1389)

تعداد صفحات اصل مقاله: 6

## نویسندگان:

V Daghigh - *M.S. student*

,S.M.R Khalili - *Professor*

,R Eslami Farsani - *Assistant Professor*

## خلاصه مقاله:

The creep behavior of basalt fiber reinforced epoxy (BFRE) and glass fiber reinforced epoxy (GFRE) composites was studied through tensile testing at high temperature. To study the effect of reinforcing epoxy, the micro glass powder (MGP) was added at various volume percentage into the epoxy resin in BFRE composites. The initial strain for all the specimens were evaluated and compared with each other. No creep rupture failures were observed in short-term (less than 10000 seconds) high temperature ( $T= 150$  and  $200$  °C) tensile creep tests at the loads up to 15% of the ultimate tensile strength (UTS) of the specimen. It was also found that the creep resistance of basalt fiber reinforced epoxy (BFRE) was higher than that of glass fiber reinforced epoxy (GFRE) and the materials are generally behaved as non-linear for all stresses and temperatures. Adding MGP decreased the initial strain of BFRE, but had no significant effect on the overall life time of BFRE.

## کلمات کلیدی:

Creep analysis, Basalt fiber reinforced composites, Glass fiber reinforced composites

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/102819>

