

## **Abstract**

This paper reports compression properties of three-dimensional carbon fiber/epoxy braided composites at temperatures from 23°C to 210°C under strain rate from 1200 s<sup>-1</sup> to 2400 s<sup>-1</sup>. It was found that the elevated temperature has a negative effect on the compression properties, whereas the strain rate effect is positive. The compression modulus has a rapid degradation at the temperature of 120°C which is close to the glass transition temperature of epoxy resin obtained from the dynamic mechanical analysis. The results also showed that the shear deformation is the main failure mode of three-dimensional braided composites at high strain rates of compression load and high temperatures.