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碳纤维/聚苯硫醚复合材料复合工艺及力学性能的研究

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STUDY ON THE PROCESSING AND MECHANICAL PROPERTIES OF CONTINUOUS CARBON FIBER REINFORCED POLY (PHENYLENE SULFIDE) (PPS) COMPOSITE

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摘要 | 参考文献 | 相关文章

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摘要 对连续碳纤维增强聚苯硫醚复合材料进行了复合工艺及力学性能的研究。研制出了制备碳纤维/聚苯硫醚复合材料预浸带的悬浮-熔融法、并优化了模压工艺条件;测定了力学性能,观察了断口形貌。结果表明:聚苯硫醚树脂与碳纤维之间有很好的粘接性、纤维得到了充分的浸润。

关键词： 悬浮—熔融法 碳纤维/聚苯硫醚复合材料 力学性能

Abstract： The processing and mechanical properties of CF/PPS composite are studied in this paper. The prepreg of CF/PPS is made with a kind of Suspension-melting method. The composite laminates of good quality are obtained by means of optimizing the moulding parameters. Mechanical properties such as tensile, flexural and short beam shear are conducted in different conditions. SEM indicates that there is an intimate wetting of PPS to carbon fiber in CF/PPS composite, and the adhesion between PPS resin and carbon fiber is very good. The results are discussed in detail.

Keywords： Suspension-melting method CF PPS covposite rnechanicnl properties

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