

研究论文

带甲基侧基的环氧树脂增容剂对炭黑在丁苯橡胶中分散度的影响

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摘要 用自制的带甲基侧基的环氧树脂(TMBP)作为界面增容剂, 从拉伸性能、键合胶含量、动态性能、扫描电镜和流变性能等方面, 研究了TMBP对炭黑在丁苯橡胶中分散度的影响, 并与市售通用双酚A型环氧树脂(E-51)和橡胶工业常用软化剂邻苯二甲酸二辛酯(DOP)进行了比较. 结果表明, 带甲基侧基的环氧树脂TMBP在提高炭黑分散性方面的效果远比E-51好, 其作用模式具有典型的增容特性.

关键词 [环氧树脂](#) [丁苯橡胶](#) [炭黑分散](#) [界面增容剂](#)

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Effect of Epoxy Resin Compatilizer with Four Side Methyl Groups on the Dispersion Degree of Carbon Black in SBR

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Abstract A synthesized epoxy resin(TMBP) with four side methyl groups was selected as the interface compatilizer between carbon black and SBR. The effect of TMBP on the dispersion degree of carbon black in SBR was investigated and compared with that of a bis-phenol A epoxy resin(E-51) and DOP by a series experiments such as tension properties, bound rubber content, dynamic properties, SEM and rheological properties. The results showed that the dispersion degree of carbon black was the best in the vulcanizates with 6 phr TMBP. TMBP acted as a typical compatilizer.

Key words [Epoxy resin](#) [Styrene-butadiene rubber](#) [Carbon black dispersion](#) [Interface compatilizer](#)

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