

3 结论

与氢氧化镁/红磷阻燃体系和聚磷酸铵/季戊四醇/三聚氰胺阻燃体系相比,无卤磷氮系复合阻燃剂JHFR101用于EPDM,胶料阻燃性能优异,用量为60份时胶料的垂直燃烧等级即可达到V0,氧指数为30%,耐热空气老化性能好,压缩永久变形小。

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Application Research of Halogen Free Nitrogen Phosphorus Composite Flame Retardant JHFR101 in EPDM

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Abstract: The influence of halogen free nitrogen phosphorus composite flame retardant JHFR101 on the flame retardant property and physical properties of EPDM was investigated in this study. The experimental results showed that, compared with magnesium hydroxide/red phosphorus and ammonium polyphosphate/pentaerythritol/melamine flame retardant systems, the flame retardant property of the EPDM with JHFR101 was better. When the JHFR101 loading was 60 phr, the compound reached V0 rating in vertical burning test, the limited oxygen index improved to 30%, the permanent set was reduced, and the hot air aging resistance was excellent.

Keywords: flame retardant; EPDM; halogen free nitrogen phosphorus composite flame retardant; magnesium hydroxide; red phosphorus; compression set

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