

研究简报

## 热水管材用乙烯-丙烯无规共聚树脂的结构表征

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摘要

关键词 [丙烯-乙烯无规共聚物](#) [热水管材](#) [TREF](#) [GPC](#)

分类号

## THE STRUCTURE CHARACTERIZATION OF ETHYLENE-PROPYLENE RANDOM COPOLYMERS FOR HOT WATER PIPING

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**Abstract** Two commercial ethylene-propylene random copolymers(A and B)for hot water piping of which A has better long term heat stability and slow crack growth resistance performance than B were fractionated with respect to the isotacticity distribution by preparative temperature-rising elution fractionation(TREF). The molecular weight and distribution of fractions and the original resins were investigated by gel permeation chromatography. The results indicated that both A and B had broad isotacticity distribution and A had fewer portions of high isotacticity than B. At the same time A had broader and more typical double-peak molecular weight distribution. The fractions of A had higher molecular weight and broader molecular weight distribution than those of B's. All of these results implied the differences between the catalysts or the polymerization processes for the two copolymers.

**Key words** [Random ethylene-propylene copolymer](#) [Hot water piping](#) [Preparative temperature-rising elution fractionation \(TREF\)](#) [GPC](#) [Fractionation](#)

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