

Rheological and Self-Healing Properties of Poly (Vinyl Butyral)

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Abstract : A new self-healing material was developed utilizing molecular entanglements for poly(vinyl butyral) (PVB) containing plasticizers. It was found that PVB shows autonomic self-healing behavior even below the glass transition temperature T_g because of marked molecular motion at surface. Moreover, the plasticizer addition enhances the chain mobility, leading to good healing behavior.

Keywords : Poly(vinyl butyral) (PVB), rheological properties, self-healing behaviour, molecular diffusion

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