

Answer on Question#64092 - Chemistry - Organic Chemistry

What is the chemical properties/reactions of polyvinyl butyral?

Answer:

The random structure of PVB results in glassy polymers with no discernible crystallinity except at very high alcohol content. The chain contains both hydrophilic vinyl alcohol groups and hydrophobic(or less hydrophilic) vinyl butyral groups. The nonpolar, polar and hydrogen bonding components can interact favorably with other macromolecules and it may therefore be compatible(and possible miscible) with both hydrophilic polymers and hydrophobic polymers. PVB has been studied with regard with its compatibility with polyvinyl chloride, bisphenol A polycarbonate, thermoplastic polyurethane, and certain polyesters and polyamides. To quantify such interactions it is necessary to understand the intramolecular interaction of VA and VB. This will facilitate the use of PVB as a copolymer with potential miscibilities with polymers having widely dissimilar groups.

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