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Technical Data Sheet: Low Molecular Weight Hydroxyl-Terminated Polybutadiene (HTPB) Resin

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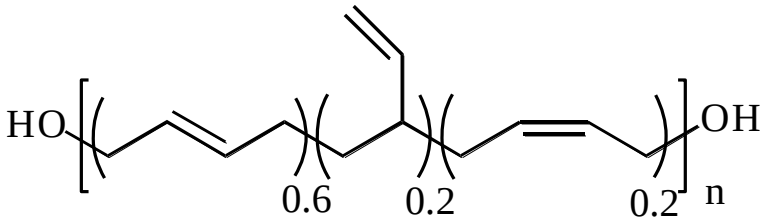

DESCRIPTION

Low Molecular Weight Hydroxy Terminated Polybutadiene (HTPB) resin is a liquid hydroxyl terminated polymer of butadiene. HTPB resins have primary allylic alcohol groups that exhibit high reactivity in either condensation polymerization reactions or the preparation of derivatives.

PRODUCT HIGHLIGHTS

Electrical insulation properties
High solids loading
Hydrolytically stable
Low glass transition temperature
Low moisture permeability
Low temperature flexibility
Resistance to aqueous acids and bases

PERFORMANCE PROPERTIES

High Clarity
Hydrophobicity
Low Color
Reactive Hydroxyl Groups

SUGGESTED APPLICATIONS

Adhesives
Coatings, waterproof
Electronics, potting compounds
Encapsulants
Sealants
Polymer modification
Polyurethanes

LOW MOLECULAR WEIGHT HYDROXY TERMINATED POLYBUTADIENE RESIN

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

Hydroxyl Value, meq/g	1.8
Iodine Number, g/100 g	420
Molecular Weight, g/mol.	1300
Non-Volatile Material (Poly bd)(%)	99.9
Polydispersity	2
Solubility in g/100 ml. Solvent @ 23 °C	
Acetone	<10(1)
Aromatic 100	>50
Chloroform >50	>50
Ethyl Acetate >50	>50
Hexane <10(1)	<10(1)
Isopropanol <10(1)	<10(1)
Methyl Ethyl Ketone >50	>50
Mineral Spirits >50	>50
Toluene >50	>50
Tg, °C	-70
Viscosity, @ 30 °C, cps	1500

(1) Cloudy: 5% solution also cloudy

Regulatory Notice
Low Molecular Weight Hydroxy Terminated Polybutadiene resin is regulated by the United States Department of Commerce and may not be exported without license from that organization.