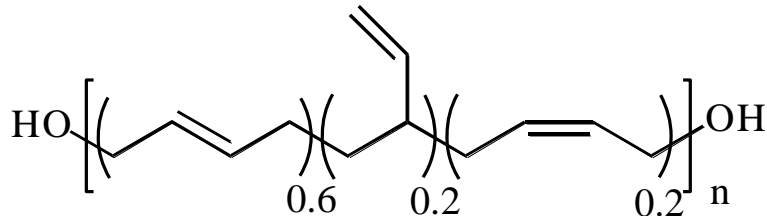

Technical Data Sheet: Hydroxyl-Terminated Polybutadiene (HTPB) Resin

HYDROXY TERMINATED POLYBUTADIENE RESIN

DESCRIPTION

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

Hydrophobicity
 Reactive hydroxyl groups
 Low glass transition temperature
 Miscibility with asphalt
 Low color - high clarity

PERFORMANCE PROPERTIES

Hydrolytic stability
 Low temperature flexibility
 Low moisture permeability
 Resistance to aqueous acids and bases
 Excellent adhesion to a variety of substrates
 Electrical insulative properties

SUGGESTED APPLICATIONS

Potting and encapsulation
 Adhesives, Sealants
 Polymer Modification
 Binders, Waterproof coatings and membranes
 Polyurethanes

**HYDROXY TERMINATED
 POLYBUTADIENE RESIN**
**TYPICAL PHYSICAL AND CHEMICAL
 PROPERTIES**

Non-Volatile Material, wt.%	99.9
Viscosity, mPa.s @ 23 °C	8000
Viscosity, mPa.s @ 30 °C	5000
Hydroxyl Number, mg KOH/g	47.1
Hydroxyl Value, meq/g	0.84
Hydroxyl Functionality	2.4-2.6
Molecular Weight, M_n	2800
Polydispersity, M_w/M_n	2.5
Water, wt.%	0.02
Specific Gravity @ 23 °C	0.901
Iodine Number, g/100 g	400
Glass Transition Temperature, °C	-75
Solubility in g/100 ml. Solvent @ 23 °C	
Mineral Spirits	>50
Toluene	>50
Chloroform	>50
Methyl Ethyl Ketone	>50
Ethyl Acetate	>50
Acetone	<10 ⁽¹⁾
Hexane	>50
Aromatic 100	>50
Isopropanol	<10 ⁽¹⁾

(1) Cloudy: 5% solution also cloudy

Regulatory Notice

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