



Where n = 1 to 10

DESCRIPTION

BMI-3000 GEL - Catalyzed is a pre-catalyzed bismaleimide oligomer that exhibits excellent flexibility and, on cure, forms very tough, hydrophobic polyimides. The material has excellent hydrolytic stability and thermal stability. As an additive it can improve rheological properties by increasing the thixotropic properties of a liquid monomer composition. This feature in turn can help to reduce resin bleed out on a variety of surfaces. It is soluble in most aromatic solvents such as toluene, xylene, tetralin, etc. **BMI-3000 GEL - Catalyzed** is compatible with and can be incorporated directly into many resin systems for enhanced performance.

HIGHLIGHTS

• Pre-catalyzed	• Solvent free
• Toughener	• Superior thermal stability
• Hydrophobic	

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	METHOD	RESULT
Appearance at Room Temperature	Visual	Red-Amber Gel
Functionality		2
Molecular Weight (approx.)		3,000 Daltons
Dielectric Constant (Dk)	Cavity Perturbation Method @ 20GHz	2.32
Dissipation Factor (Df)		0.0018
Weight Loss @ 300°C	TGA	< 1.0.%
Melting Point (typical)	DSC	80°C
Td (5%)	TGA	> 438°C
Recommended Storage Temp		Room Temperature

Data is for reference only and may vary depending on testing method used. The structure shown above is an idealized representation of a statistical distribution.

RECOMMENDED FORMULATION USE:

BMI-3000 GEL - Catalyzed is recommended for use as an additive to increase flexibility, hydrophobicity and thixotropy. It has excellent adhesion to a variety of organic substrates and adhesion to metals can be enhanced via coupling agents. The pre-added catalyst allows used directly in thermal cure applications without the need for an additional formulation step. The material forms excellent films that can subsequently cure thermally. When used as a base resin, it can produce films that are tough, flexible and demonstrate good peel strength.

CURING RECOMMENDATIONS:

BMI-3000 GEL - Catalyzed is designed for thermal curing. A minimum of one hour at 150°C is a recommended starting point. Higher temperatures (up to 175 – 180°C) will result in significantly shorter cure time requirements. Curing below 150°C is not recommended. Due to its solvent free nature the curing of **BMI-3000 GEL - Catalyzed** is generally independent of ramp rate – both hot plate or oven are acceptable curing devices. Nitrogen atmosphere is not required but may reduce any oxygen poisoning that may occur on the surface of the material.

CONTACT:

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