



contains unsaturation

DESCRIPTION

BMI-689 is a unique low viscosity liquid bismaleimide based on a non-hydrogenated dimer diamine backbone. It can be homo-cured via UV or free radical initiators to form tough, hydrophobic, cross-linked polyimides. The material has excellent low pH hydrolytic resistance and thermal stability. The amorphous nature of this BMI allows it to be used in a variety of applications including mixed cure systems (e.g. epoxy and BMI), mixed BMI systems or where a low viscosity, free radical cured resin is required. It is soluble in most aromatic and aliphatic solvents such as toluene, xylene, NMP, etc.

HIGHLIGHTS

- Low viscosity liquid BMI
- High adhesion to various substrates
- Hydrophobic
- Superior thermal stability

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	METHOD	RESULT
Appearance at Room Temperature	Visual	Yellow to amber liquid
Functionality		2
Molecular Weight (approx.)		689 Daltons
Viscosity @ 25°C	Cone and Plate @ 5 rpm	1,500 ± 500 cP
Weight Loss @ 300°C (neat, in air)	TGA	< 1.0 %
Decomposition Temperature (neat, in air)	TGA	> 400 °C
Modulus @ 25°C (cured with 2% Dicumyl Peroxide)	DMA	~ 500 MPa
Glass Transition Temperature	DMA	< 0 °C
Coefficient of Thermal Expansion (CTE, α ₂)	TMA	200 ppm/°C
Dielectric Constant (20 GHz)	Cavity Perturbation Method	2.43
Dissipation Factor (20GHz)		0.0020
Recommended Storage Temp		+5°C or Colder

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-689 is recommended for use as an additive or base resin in adhesives that are designed for high temperature resistance. It has excellent adhesion to a variety of substrates. When used as a base resin, it can produce films that are tough, flexible and demonstrate good peel strength.

CONTACT:

REQUEST A SAMPLE OR PLACE AN ORDER

Customer Support

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REF: DMI Part Number: R1155