### TECH DATA SHEET



#### DESCRIPTION

DMI-2575 is a unique low viscosity liquid bismaleimide based formulation suitable for use as a base resin system for spray applications. The material comes pre-catalyzed for thermal curing and forms tough, hydrophobic, cross-linked polyimides. DMI-2575 has excellent low pH hydrolytic resistance and thermal stability.

#### HIGHLIGHTS

- Pre-catalyzed
- Extended pot-life (> 6 mo. @ room temp.)
- Hydrophobic

- Solvent free
- Superior thermal stability
- Does not require refrigerated shipping

# **TYPICAL PHYSICAL AND CHEMICAL PROPERTIES**

PROPERTY	METHOD	RESULT
Appearance at Room Temperature	Visual	Amber liquid
Viscosity @ 25°C	Cone and Plate @ 5 rpm	1400 ± 300 cP
Glass Transition	ТМА	41°C
CTE α1 / α2	ТМА	117 ppm/°C / 282 ppm/°C
Modulus @ 25°C	DMA	0.53 GPa
Tensile Strength	Instron	1,866 PSI / 12.9 MPa
Elongation	Instron	4.7 %
Volumetric Shrinkage During Cure		7.0 %
Moisture Absorption	24 hr. immersion @ 23°C	0.22 %
Dielectric Constant	Cavity Perturbation Method @ 20GHz	2.420
Dissipation Factor		0.0027
Weight Loss @ 300°C	TGA (cured at 190°C,10 mins)	< 1.4 %
Decomposition Temperature	TGA	> 440 °C
Recommended Storage Temp		+5°C or Colder

Data is for reference only and may vary depending on testing method used

### **RECOMMENDED FORMULATION USE:**

Ethyl acetate is the recommended solvent for use in spray coating applications. DMI-2575 has been shown to produce films with adequate acetone rubbing resistance when dried/cured as recommended below. Other solvents may be used, but evaluation by the customer prior to selection is recommended. The choice of filler is left up to the customer for their specific application requirements. DMI-2575 can contribute to films that are tough, flexible with good peel strength.

## DRYING AND CURING RECOMMENDATIONS:

- Drying: ≤ 100°C (if required and regardless of solvent used for dilution)
- Curing: 190°C for 10 minutes

It is important to remove the solvent prior to curing the material. For applications producing thin films, solvent removal can be accomplished as part of the curing process with no negative consequences. Otherwise a drying step should be included prior to curing. Other curing schedules can be used but one hour at 150°C should be considered the minimum starting values. Nitrogen atmosphere is not required during curing but may reduce oxygen poisoning that may occur on the surface of the material at low cure temperatures.

# CONTACT:

#### **REQUEST A SAMPLE OR PLACE AN ORDER**

> • 10080 Willow Creek Road • San Diego, CA 92131 • Tel: (858) 348-1122 • Fax: (858) 348-1123 • • www.designermoleculesinc.com •

