

PRODUCT DATA SHEET

DESCRIPTION

Toray EX-1545 is a 2-part highly modified, tough cyanate ester resin formulated to have extremely low viscosity at room temperature. The low viscosity allows RTM processing with minimal heat to the resin, which extends resin pot life and mold filling time for difficult and/or large RTM'd structures. EX-1545 displays both excellent mechanical and thermal properties in addition to low moisture absorption. Finally, the material is unique in that it develops full mechanical properties from its initial 177°C (350°F) cure.

FEATURES

- ▶ Low viscosity
- ▶ No post cure required
- ▶ Low moisture absorption
- ▶ Extreme toughness
- ▶ Resistant to aviation fluids

PRODUCT TYPE

177°C (350°F) Curing Toughened Cyanate Ester for RTM Applications

TYPICAL APPLICATIONS

- ▶ Aircraft structures
- ▶ Radomes and antennas
- ▶ Low observables
- ▶ Missile structures
- ▶ High performance and high heat commercial applications

PARAMETERS

Pot Life:	24 hrs minimum at 25°C (77°F)
Cure Schedule:	2 hrs at 177°C (350°F) in mold
Mix Ratio (A:B):	1:1 by weight

TYPICAL NEAT RESIN PROPERTIES

Specific Gravity	1.25 gm/cc
T _g (177°C Cure) (350°F)	173°C (345°F)
Moisture Absorption	0.85% after 24-hour water boil
Flexural Strength	145 MPa (21 ksi)
Flexural Modulus	3.4 GPa (0.50 Msi)
Flexural Strain	7.5%

SERVICE TEMPERATURE

163°C (325°F) Dry
149°C (300°F) Wet



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PHYSICAL PROPERTIES: VISCOSITY (cps)

Temperature	0 Days Out Time	7 Days Out Time
25°C (77°F)	466	486
43°C (110°F)	62	141
66°C (150°F)	34	41
121°C (250°F)	34	-

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