

PRODUCT DATA SHEET

DESCRIPTION

Toray RS-16 is a low temperature, low viscosity cure cyanate ester resin that can be used in wet winding, RTM, and VARTM processing. Its two-part construction allows easy and long-term storage while delivering excellent pot life. It is intended for lower temperature exposure with a moderate T_g requirement, and is an ideal system when used with different materials limiting the upper cure temperature. The system may also be cured using different combinations of cure/post cure temperatures and durations.

FEATURES

- ▶ **135°C (275°F) 2-hour curing cyanate resin with optional post cure cycles**
- ▶ **RTM resin with very low viscosity at temperature**
- ▶ **Low viscosity at elevated temperature**
- ▶ **Two part resin: Mix Ratio 100:9 Part A to Part B**

PRODUCT TYPE

135°C (275°F) Cyanate Ester RTM Resin System

TYPICAL APPLICATIONS

- ▶ Liquid resin

SHELF LIFE

Pot Life:	230 minutes at 75°C (167°F) 60 minutes at 100°C (212°F)
Frozen Storage Life:	12 months at 4°C (< 40°F)

TYPICAL NEAT RESIN PROPERTIES

Specific Gravity	1.21 g/cc
T_g	No post cure: 149.4°C (300.9°F) Post Cure A: 231.2°C (448.2°F) Post Cure B: 230.2°C (446.4°F)
Viscosity (at 50°C/122°F)	500 cps
Minimum Viscosity (at 105°C/221°F)	30 cps

T_g specimen cure: Ramp to 113°C (235°F) and hold for 4 hours, then ramp to 135°C (275°F) and hold for 1.5 hours
Post Cure A: 149°C (300°F) for 2 hours
Post Cure B: 177°C (350°F) for 2 hours



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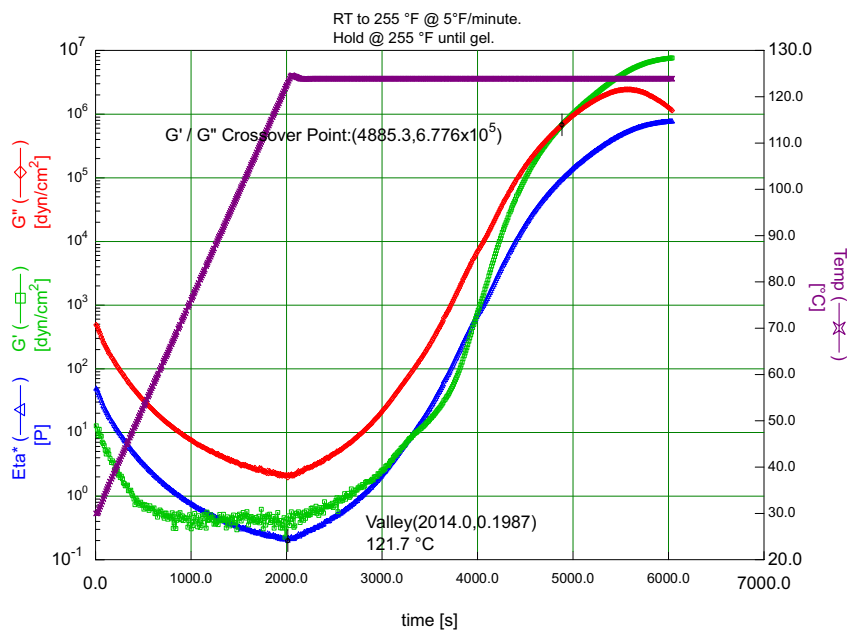
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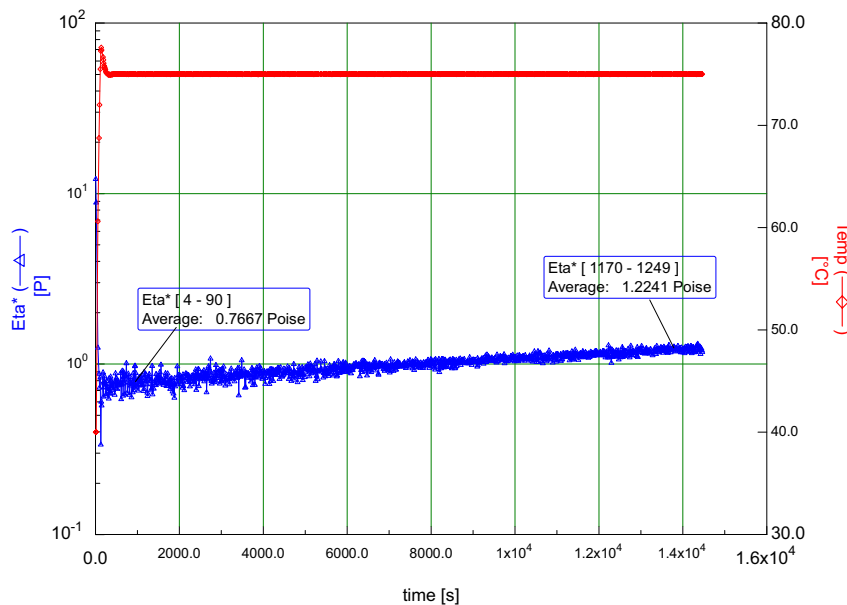
MECHANICAL PROPERTIES

Property	Condition	Method	Typical Results	
Flexural Modulus	RTD	ASTM D 7264	4.1 GPa	592 ksi
Flexural Strength	RTD	ASTM D 7264	159 MPa	23.1 ksi
Flexural Strain	RTD		4.1%	

FB16K461-1, FB16K449-1, RS-16 Part A and B, Iso Profile 1

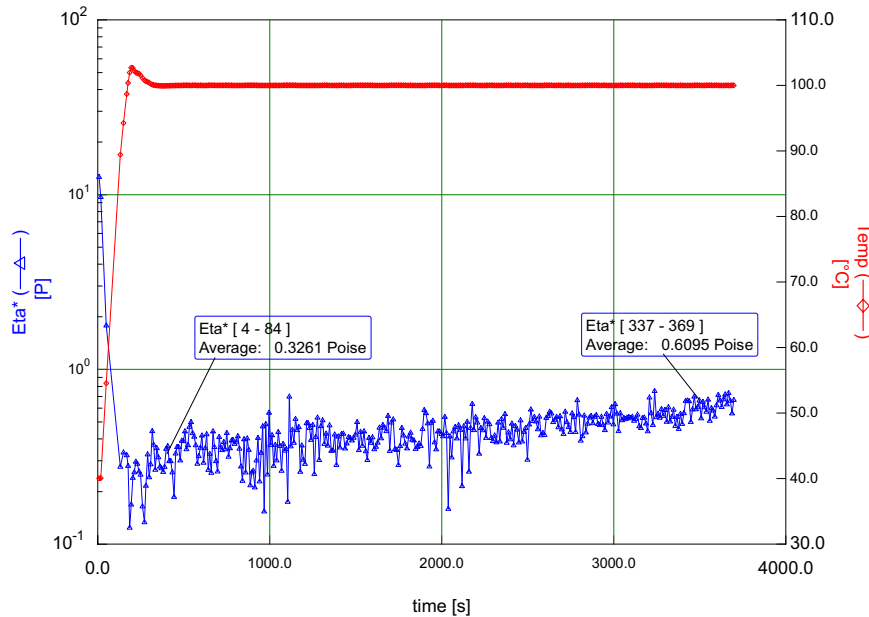


FB18K745 RS-16 Part A and FBK746 RS-16 Part B, Iso @ 75 C



PRODUCT DATA SHEET

FB18K745 RS-16 Part A and FBK746 RS-16 Part B, Iso @ 100 C



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