

PRODUCT DATA SHEET

DESCRIPTION

Toray RS-16 is a low viscosity, low temperature curing 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 other materials that limit 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

- ▶ RTM, VARTM, Resin Infusion, Wet Winding

SHELF LIFE

Pot Life:	3 hours 50 minutes at 75°C (167°F) 60 minutes at 100°C (212°F)
Storage Life:	12 months when stored refrigerated between 1°C (34°F) and 4°C (39°F), tightly sealed and blanketed with inert gas, or 6 months when stored at 5°C (41°F) to 25°C (77°F), tightly sealed and blanketed with inert gas DO NOT FREEZE: NO STORAGE AT 0°C (32°F) OR BELOW

TYPICAL NEAT RESIN PROPERTIES

Specific Gravity	1.21 g/cc
T_g	No Post Cure: 149.4°C (300.9°F) Post Cure A: 230°C (446°F) Post Cure B: 230°C (446°F)
Viscosity at 50°C (122°F)	500 cPs
Minimum Viscosity at 122°C (251.6°F)	20 cP

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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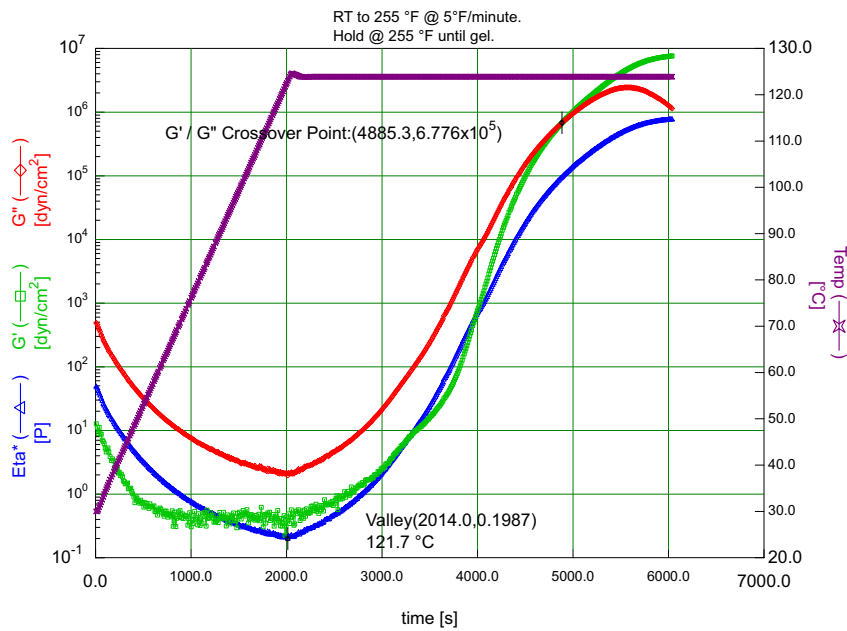
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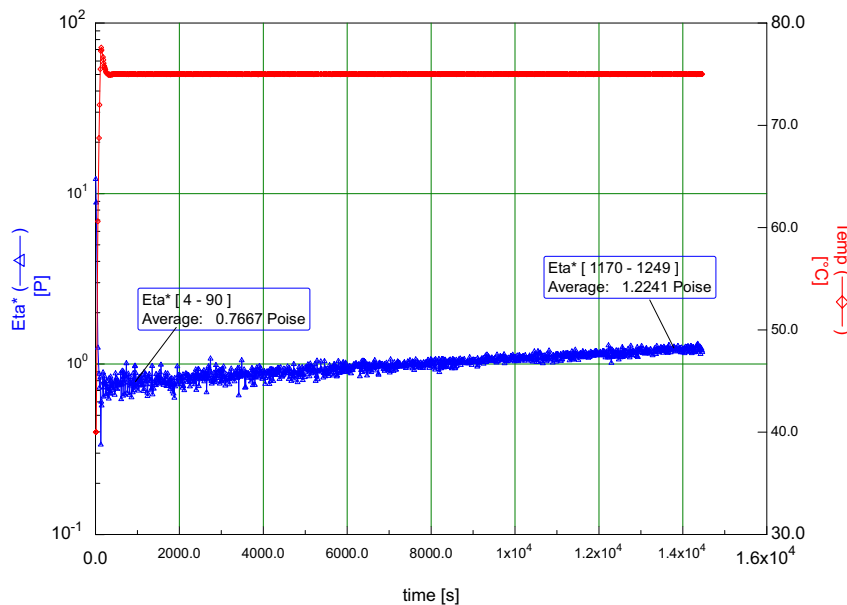
RESIN MECHANICAL PROPERTIES

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	Calculation	4.1%	

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

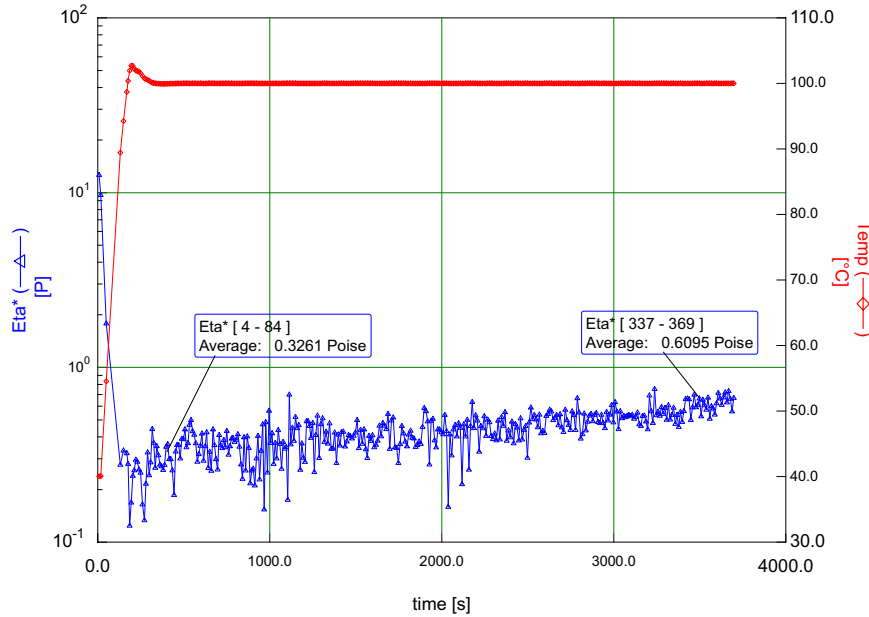


FB18K745 RS-16 Part A and FBK746 RS-16 Part B, Iso @ 75 C



PRODUCT DATA SHEET

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



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