



LAMINATING  
EPOXY

Experimental

ADHESIVES

# XR02-099-29A/226

Fire Retardant Epoxy

PROCESS  
EQUIPMENT

A low viscosity, fire retardant epoxy resin/hardener combination for the manufacture of composite laminates. Thixotrope added to control flow and drain-out in contact molding and vacuum bagging applications. This combination intended for use in secondary bonding applications and small part fabrication.

**Mix Ratio (XR-29A:226)**

by weight . . . . . 100:26  
by volume . . . . . 100:30

**Mixed Viscosity**

Brookfield, #4 spdl, 20 RPM, 72°F . . . . . 1,400 cPs

**Pot Life**

100g @ 72°F. . . . . 40 min.

**Caution**

*Stir Resin thoroughly with mechanical mixer before blending with Hardener. Contents may settle during storage.*

XR 02-099-29A when used in conjunction with PRO-SET 237 Hardener is accepted for compliance with Lloyd’s Register Rules and Regulations and with the International Convention for Safety of Life at Sea (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd’s Register, and for use on ships and offshore installations when authorized by contracting governments to issue the relevant certificates, licenses, permits, etc.

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FIRE RETARDANT LAMINATING EPOXY—PHYSICAL PROPERTIES

XR 02-099-29A Resin / 226 Hardener

Physical Property	Test Method	Cure Schedule	
		Room Temp. x 2 weeks	RT x 15 hr + 140°F x 8 hr
Hardness (Shore D)	ASTM D-2240	84	84
Compression Yield (psi)	ASTM D-695	10,176	10,772
Tensile Strength (psi)	ASTM D-638	7,050	7,730
Tensile Elongation (%)	ASTM D-638	2.8	2.8
Tensile Modulus (psi)	ASTM D-638	4.35E+05	4.50E+05
Flexural Strength (psi)	ASTM D-790	13,600	14,900
Flexural Modulus (psi)	ASTM D-790	4.18E+05	4.55E+05
Onset of Tg by DSC (°F) **		125°F	133°F
Ultimate Tg by DSC (°F) **		151°F	151°F
Heat Deflection Temperature (HDT) (°F)	ASTM D-648	114°F	126°F
Izod Impact, notched (Ft-lb/in)	ASTM D-256	0.514	0.647

Test Specimens were neat epoxy (without fiber reinforcement)

\*\* Determined using a Differential Scanning Calorimeter (DSC). Value reported is the onset of the glass transition Typical Values; not to be construed as specification

June 2003