



**EL-360**  
**EPOXY LAMINATING**  
**& INFUSION SERIES**  
 HIGH PERFORMANCE  
 COMPOSITES

**PRODUCT BULLETIN**



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**DESCRIPTION**

**EL-360** is an undiluted, 100% solids epoxy system formulated for the applications of vacuum infusion molding, laminating, filament winding, pultrusion and compression molding. This system has excellent mechanical properties and good cure characteristics at ambient temperature. This series gives the composites engineer a choice of two hardener options to work with; **EL-360-1** standard hardener and **EL-360-2** slow hardener. This system was previously named EL-355 Series.

**HANDLING CHARACTERISTICS @ 25°C/77°F**

	<u><b>EL-360-1 Hardener</b></u>	<u><b>EL-360-2 Hardener</b></u>
Mix Ratio (parts by weight).....	100R/30H.....	100R/32H
Resin Density .....	1.16 g/cc .....	1.16 g/cc
Hardener Density .....	0.96 g/cc .....	0.96 g/cc
Mixed Viscosity .....	326 MPa (326 cps).....	280 MPa (280 cps)
Work Life @ 25°C (ASTM D-2471) .....	70 minutes (200 gram mass) .....	>560 minutes (100 gram mass) >180 minutes (1000 gram mass)
Accelerated Cure Schedule .....	8 hours @ 80°C/176°F.....	8 hours @ 80°C/176°F
Room Temperature Cure Schedule .....	7 days at ambient temp.....	7 days at ambient temp
Cure Schedule for Best Properties .....	8 hours @ 80°C/176°F.....	8 hours @ 80°C/176°F
Mixed Color .....	Clear Light Amber .....	Clear Light Amber
Shelf Life Resin and Hardeners (in original unopened containers) .....		2 years

**TYPICAL PHYSICAL PROPERTIES (neat resin heat cured 8 hours at 80°C/176°F)**

	<u><b>EL-360R/EL-360-1H</b></u>	<u><b>EL-360R/EL-360-2H</b></u>
<b>Tensile Test per ISO 527 (ASTM D 638)</b>		
Tensile Strength .....	69.89 MPa (10,137 psi) .....	73.6 MPa (10,684 psi)
Elongation at Tensile Strength .....	4.51% .....	4.03%
Tensile Strength at Yield .....	50 MPa (7,255 psi).....	54.2 MPa (7,867 psi)
Ultimate Elongation .....	5.69% .....	7.71%
Tensile Modulus .....	2,840.59 MPa (411,993 psi) .....	3,192.7 MPa (463,075 psi)
<b>Flexural Test per ISO 178 (ASTM D 790)</b>		
Flexural Strength .....	122.27 MPa (17,733 psi) .....	131.2 MPa (19,040 psi)
Elongation at Flexural Strength .....	6.43% .....	5.62%
Ultimate Strength .....	113.2 MPa (16,431 psi) .....	97.3 MPa (14,120 psi)
Ultimate Elongation .....	8.20% .....	9.31%
Flexural Modulus .....	3,171.58 MPa (460,000 psi) .....	3,102.6 MPa (450,000 psi)
Glass Transition Temp (T <sub>g</sub> by DSC ASTM E-1545) .....	83.3°C/181.9°F .....	*76.8°C/170.4°F
Heat Deflection Temperature @ 66 psi (ASTM D-648) .....	74.7°C/166.5°F .....	*73.4°C/164.1°F
Compressive Strength (ASTM D-695) .....	94.83 MPa (13,754 psi) .....	100.4 MPa (14,565 psi)
Izod Impact Strength (ASTM D-256).....	12.44 in-lbs/in.....	12 in-lbs/in
Moisture Absorption (ASTM D-570)		
(+/- Weight Change at 24 hours immersion) .....	0.17% .....	n/a
(+/- Weight Change at 168 hours immersion) .....	0.54% .....	n/a

\*Denotes samples conditioning cure was 6 hours @ 70°C before testing.

EL-360 Series Tech/New 4/13/10  
 Previously EL-355 Series Tech 7/21/09

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