

## Lord Adhesives Fusor<sup>®</sup> 309-1D / 309-2D Epoxy Adhesive

Category : Polymer , Adhesive , Thermoset , Epoxy , Epoxy Adhesive

### Material Notes:

Lord<sup>®</sup> 309 is a high performance, thixotropic, two-part epoxy adhesive that is used for applications that require gap filling or non-slumping characteristics on a vertical substrate. The cured adhesive offers strong, durable, chemically and environmentally resistant bonds. Lord 309 adhesive has demonstrated excellent adhesion to prepared metals, FRP, wood, prepared rubber, and other materials. All information provided by Lord.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lord-Adhesives-Fusor-309-1D-309-2D-Epoxy-Adhesive.php](http://www.lookpolymers.com/polymer_Lord-Adhesives-Fusor-309-1D-309-2D-Epoxy-Adhesive.php)

Physical Properties	Metric	English	Comments
Density	0.989 - 1.04 g/cc	0.0357 - 0.0376 lb/in <sup>3</sup>	309-2D Hardener
	1.26 - 1.29 g/cc	0.0455 - 0.0466 lb/in <sup>3</sup>	309-1D Resin
Solids Content	100 %	100 %	309-1D Resin
	100 %	100 %	309-2D Hardener
	100 %	100 %	Mixed
Water Absorption	0.21 %	0.21 %	ASTM D570-81
	@Time 86400 sec	@Time 24.0 hour	
Brookfield Viscosity	300000 - 1.00e+6 cP	300000 - 1.00e+6 cP	309-2D Hardener; HBF with Helipath and T-C @ 5rpm
	@Temperature 25.0 Å°C	@Temperature 77.0 Å°F	
	300000 - 1.00e+6 cP	300000 - 1.00e+6 cP	Mixed; HBF with Helipath and T-C @ 5rpm
	@Temperature 25.0 Å°C	@Temperature 77.0 Å°F	
	300000 - 1.10e+6 cP	300000 - 1.10e+6 cP	309-1D Resin; HBF with Helipath and T-C @ 5rpm
	@Temperature 25.0 Å°C	@Temperature 77.0 Å°F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	74	74	Lord TM 23B
Tensile Strength at Break	37.9 MPa	5500 psi	ASTM D882-83A (mod)
Elongation at Break	6.0 %	6.0 %	ASTM D882-83A (mod)
Modulus of Elasticity	1.086 GPa	157.5 ksi	ASTM D882-83A (mod)

Thermal Properties	Metric	English	Comments
CTE, linear	268 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	149 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	above Tg; Lord Internal Method (by DMA)
Glass Transition Temp, Tg	70.0 $\text{Å}^\circ\text{C}$	158 $\text{Å}^\circ\text{F}$	ASTM E1640-99 (by DMA)
Flash Point	$\geq 93.0 \text{ Å}^\circ\text{C}$	$\geq 199 \text{ Å}^\circ\text{F}$	309-1D Resin; Closed Cup
	$\geq 93.0 \text{ Å}^\circ\text{C}$	$\geq 199 \text{ Å}^\circ\text{F}$	309-2D Hardener; Closed Cup
	$\geq 93.0 \text{ Å}^\circ\text{C}$	$\geq 199 \text{ Å}^\circ\text{F}$	Mixed; Closed Cup

Processing Properties	Metric	English	Comments
Cure Time	1440 - 2880 min @Temperature $\geq 18.0 \text{ Å}^\circ\text{C}$	24.0 - 48.0 hour @Temperature $\geq 64.4 \text{ Å}^\circ\text{F}$	
Pot Life	90 - 120 min @Temperature 25.0 $\text{Å}^\circ\text{C}$	90 - 120 min @Temperature 77.0 $\text{Å}^\circ\text{F}$	54g mass
Shelf Life	12.0 Month @Temperature 25.0 $\text{Å}^\circ\text{C}$	12.0 Month @Temperature 77.0 $\text{Å}^\circ\text{F}$	309-1D Resin
	12.0 Month @Temperature 25.0 $\text{Å}^\circ\text{C}$	12.0 Month @Temperature 77.0 $\text{Å}^\circ\text{F}$	309-2D Hardener

Descriptive Properties	Value	Comments
Appearance	Amber	309-2D Hardener
	Blue	309-1D Resin
	Blue-green	Mixed
Consistency	Paste	309-1D Resin
	Paste	309-2D Hardener
	Paste	Mixed

## Contact Songhan Plastic Technology Co.,Ltd.

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