

Technical Data Sheet

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EPIKURE™ Curing Agent 3140

Product Description

EPIKURE Curing Agent 3140 is a low viscosity reactive polyamide, high imidazoline, moderate molecular weight epoxy curing agent based on dimerized fatty acid and polyamines. Epoxy resin compatibility and thin film curves are very good.

Application Areas/Suggested Uses

- Metal and plastic adhesives
- Highway and bridge deck repairs
- Potting, casting, and encapsulation
- Synthetic flooring systems
- Maintenance coatings
- Tank and pipe linings

Benefits

- Good chemical and corrosion resistance
- Good water resistance
- Good pigment and substrate wetting
- Good adhesion

Sales Specification

Property	Units	Value	Test Method/Standard
Amine value	mg/g	360-390	ASTM D2896
Viscosity @ 40°C	cP	3,000-4,000	ASTM D2196
Color	Gardner	9	ASTM D1544

Typical Properties

Property	Units	Value	Test Method/Standard
Flash point	°C	>110	ASTM D3278
Density @ 25 °C	lbs/gal	8.1	

Viscosity @ 25 °C	P	130	
Appearance		Clear and free of foreign particles	
Equivalent weight	approx	95	
Mix ratio			
EEW 190 epoxy	phr	50	

Performance Properties

Table 1 / Properties of EPON Resin 828 cured with EPIKURE Curing Agent 3140

Composition	Method	Units	A	B	C	D
EPON™ Resin 828			100	100	100	100
EPIKURE Curing Agent 3140			45	90	45	90

Blend properties at 25 °C

Viscosity, Original		cp	11,300	9,900	11,300	9,900
Gel Time, 100 gram mass		hours	2.5	2	2.5	2
Peak Exotherm						
100 gram mass		°F	92	97	92	97
100 gram mass		°C	33	36	33	36

Cured State Properties ¹

Heat Deflection Temperature	D648	°C	97	72	66	64
Tensile Strength, Ultimate	D638	psi	8,500	7,300	7,400	7,500
Tensile Elongation		%	4.5	11.8	3.0	7.2
Tensile Modulus, Initial		ksi	420	320	340	290
Flexural Strength, Ultimate	D790	psi	14,000	12,000	12,500	11,000
Flexural Deflection		in.	0.44	>0.60	>0.60	>0.60
Flexural Modulus, Initial		ksi	310	340	400	340
Compression Strength, Ultimate	D695	psi	33,000	34,000	12,600	17,200
Compression Strength, Yield		psi	–	9,100	11,500	9,600
Izod Impact, notch	D256	ft-lb/inch	0.51	0.88	0.63	1.18
Hardness	D2240	Shore D	84	82	84	82
Water Absorption ²			0.18	0.33	0.16	0.25
Weight Loss ³			0.02	0.05	0.02	0.

Electrical Properties

Dielectric Constant ⁴	D150	3.61	3.41	3.85	3.5205
Dissipation Factor ⁴		0.021	0.018	0.011	0.015

¹Determined at 25 °C on 1/8-inch thick test specimens. Systems A and B were cured for 16 hours at 25 °C followed by 2 hours at 100 °C. Systems C and D were cured for 2 weeks at room temperature.

²Percent weight gain after immersion for 24 hours.

³Percent weight loss after 24 hours at 150 °C.

⁴Determined at 1 megacycle and 25 °C.

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Please refer to the Hexion web site for Shelf Life and recommended Storage information.

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Available in bulk and drum quantities.

Contact Information

For product prices, availability, or order placement, call our toll-free customer service number at: 1-877-859-2800

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