

Technical Data Sheet

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EPIKURE™ Curing Agent 3125

Product Description

EPIKURE™ Curing Agent 3125 is a medium viscosity reactive polyamide curing agent, based on dimerized fatty acid and poly-amines. This is a general purpose curing agent for epoxy resins that is suitable for many uses including solvent-borne coatings, potting, adhesives, caulks and grouts. EPIKURE Curing Agent 3125 can be used with a wide range of epoxy resins and can be blended with other amine-based hardeners.

Application Areas/Suggested Uses

- Maintenance and marine coatings
- Coal tar epoxy systems
- Potting, casting, and encapsulation
- Adhesives, caulks and grouts

Benefits

- Excellent adhesion
- Good water resistance
- Good toughness and flexibility
- Good pigment and substrate wetting

Sales Specification

Property	Units	Value	Test Method/Standard
Amine value	mg/g	330-360	ASTM D2896
Viscosity at 40°C	cP	8000-12000	ASTM D2196
Color	Gardner	<9	ASTM D1544

Typical Properties

Property	Units	Value	Test Method/Standard
Equivalent weight, approx.	AHEW	127	
Density @ 25 °C	lbs/gal	8.1	
Flash point	°C	>110	ASTM D3278
Appearance		Clear and free of foreign particles	

Mix ratio			
Epoxy Resin (EEW 190)	phr	50-70	
Epoxy Resin (EEW 525)	phr	33	

Performance Properties

Table 1 / **Properties of epoxy resins in combination with EPIKURE Curing Agent 3125 – all formulations cured 1 day at RT plus 2 hrs. at 100 °C**

Composition	Units	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
EPON™ Resin 828		100	100	–	–	–
EPON Resin 813		–	–	100	–	–
EPON Resin 815C		–	–	–	100	–
EPON Resin 8132		–	–	–	–	100
EPIKURE Curing Agent 3125		54	67	67	67	62

Handling Properties @ 25°C

Resin viscosity	cP	14,000	14,000	650	725	700
System viscosity	cP	21,400	22,650	4475	4500	4300
Gel time @ 100 g mass	min.	97	111	217	211	240

Cured State Properties

Heat deflection temperature	°C	75	72	50	51	44
Tensile strength	psi	8590	7580	6000	6000	4420
Tensile modulus	ksi	380	340	350	310	240
Tensile elongation	%	3.7	5.6	6.7	10.7	10.0
Flexural strength	psi	12,760	12,010	11,790	10,250	7840
Flexural modulus	ksi	350	340	350	300	230
Compression strength	psi	33,010	31,890	32,130	N/A	23,220
Compression modulus	ksi	280	260	280	240	200
Hardness	Durometer D	83	79	82	80	73

Table 2 / **Chemical resistance properties ¹ of epoxy resins cured with EPIKURE Curing Agent 3125 – all formulations cured 1 day at RT plus 2 hrs. at 100 °C**

Percent Weight Gain	<u>Units</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
Water						
After 24 hours	%	0.12	0.20	0.17	0.22	0.19
After 7 days	%	0.46	0.54	0.53	0.70	0.63
5% Acetic acid						
After 24 hours	%	0.58	0.57	1.27	1.50	1.07
After 7 days	%	1.72	1.76	3.89	4.37	3.13
50% xylene/50% isopropanol						
After 24 hours	%	2.89	2.87	13.83	9.84	13.20
After 7 days	%	8.07	7.94	fragmented	fragmented	fragmented

¹ Percent weight gain of 3" x 1" x 0.125" specimens immersed at 23 °C.

Safety, Storage & Handling

Please refer to the MSDS for the most current Safety and Handling information.

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

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Packaging

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

For literature and technical assistance, visit our website at: www.hexion.com

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