Technical Data Sheet

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 Specifications

Property	Value	Unit	Test Method
Amine Value	360 - 390	mg/g	ASTMD2896
Color	9	Gardner	ASTMD1544
Viscosity at 40°C	3000 - 4000	cP	ASTMD2196

Typical Properties

Property	Value	Unit	Test Method
Appearance	Clear and free of foreign particles		
Density @ 25°C	8.1	lbs/gal	
Equivalent Weight Approx.	95		
Flash Point	>110	°C	ASTMD3278
Mix Ratio Epoxy Resin (EEW 190)	50	PHR	
Viscosity @ 25°C	130	P	

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

Composition	Method	Units	A	B	C	D
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

[1]Determined 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.

[2]Percent weight gain after immersion for 24 hours.

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

[4]Determined at 1 megacycle and 25 °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.

Exposure to these materials should be minimized and avoided, if feasible, through the observance of proper precautions, use of appropriate engineering controls and proper personal protective clothing and equipment, and adherence to proper handling procedures. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheet (MSDS) for these and all other products being used are understood by all persons who will work with them. Questions and requests for information on Hexion Inc. ("Hexion") products should be directed to your Hexion sales representative, or the nearest Hexion sales office. Information and MSDSs on non-Hexion products should be obtained from the respective manufacturer.

Packaging

Available in bulk and drum quantities.

Contact Information

For product prices, availability, or order placement, please contact customer service:

www.hexion.com/Contacts/

For literature and technical assistance, visit our website atwww.hexion.com