V/estlake Epoxy

Technical Data Sheet

EPIKURE[™] Curing Agent 3204

Description

EPIKURE Curing Agent 3204 is a solvent-free, flexible amine curing agent that offers a unique combination of very low viscosity, low equivalent weight, light color and improved cure rates at high film builds. This unique curing agent does not contain benzyl alcohol, nonyl phenol or free BPA. Combinations with liquid epoxy resins enable very good adhesion to metal and concrete in applications where a high degree of substrate movement is expected.

General Information

EPIKURE Curing Agent 3204 is suitable for use in ambient temperature cure solvent free protective coatings for industrial and transportation markets in addition to civil engineering and adhesive applications in which elevated levels of elongation, flexibility or impact resistance is required during service. Minimum suggested curing temperature is 10°C.

Application Areas/Suggested Uses

- Impact resistant formulations
- Elastomeric coatings
- Flexible grouts and joint compounds
- Mastics
- Road repairs Adhesives
- 100% solids

Benefits

- Outstanding flexibility and superior impact resistance
- Low product viscosity (300 cP) Lower use level of curing agent (65 phr) versus other flexible amines
- Improved through-cure (12 hrs. at 20 mils DFT) and faster return to service times
- Good adhesion to treated and untreated steel

Sales Specifications

Property	Value	Unit	Test Method
Amine Value	240 - 265	mg KOH/g	ASTM D2896
Viscosity Brookfield at 25°C	200 - 500	сР	ASTMD1545
Color	3 max	Gardner	ASTMD1544

Typical Properties

Property	Value	Unit	Test Method
Equivalent Weight (Ahew)	114	g/eq	Calculated
Density at 25°C	7.66	lb/gal	ASTMD742
Recommended ratio with EPON™ Resin 828	60	PHR	Calculated

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Usage Information

Improved reactivity can be achieved when EPIKURE Curing Agent 3204 is combined with an 80:20 w/w blend of EPON™ Resin 828 and EPON Resin 8111. See the Example below.

Performance Properties

EPON™ Resin 828 & 8111 combined with EPIKURE™ Curing Agent 3204

	Test Method/Standard	Units	А
EPON Resin 828		pbw	80
EPON Resin 8111		pbw	20
EPIKURE Curing Agent 3204		pbw	65

Handling Properties @ 25°C			
Viscosity, Initial	ASTM D2196	сР	3450
Gel Time, 100 gram mass	SHYODU	min	85
Pot Life ¹	ASTM D2196	min	22

Cured State Properties²

Tg by DSC – midpoint	ASTM D3418	°C	24.8
Tensile Strength	ASTM D638	psi	2087
Tensile Elongation		%	180
Tensile Modulus		ksi	65.2
Impact resistance in a clear @ 20 mils DFT (Dir. / Rev.)	ASTM D2794	in-Ibs	160 / 160
Cure Through Time @ 20 mils DFT	ASTM D1640	hrs	<12

¹ Time to double initial viscosity

 2 Cured 24hrs at 70 °F and 55%RH then post-cured for 1hr at 100 °C. 1/8" casting

Safety, Storage & Handling

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

Please refer to the Hexion Inc. 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

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Packaging

Available in bulk and drum quantities.

Contact Information

For product prices, availability, or order placement, visit the "Contact Us" section of our website. For literature and technical assistance, visit our website at: www.hexion.com/epoxy

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