

Technical Data Sheet

EPIKURE™ Curing Agent 3378

Product Description

EPIKURE™ Curing Agent 3378 is a relatively low viscosity, modified amine adduct, light-colored epoxy curing agent which, when combined with epoxy resins, cures to clear, tack-free films under low-temperature and high humidity conditions.

Application Areas/Suggested Uses

- Primers and topcoats for non-potable water containers and related equipment
- Solvent-free marine coatings
- Tough, flexible, fast-setting, high-clarity adhesives

Benefits

- Fast, tack-free cures
- Long pot-life
- Good through-cure at low temperatures
- Good corrosion resistance
- Excellent clarity and low color
- Self-leveling properties

Sales Specifications

Property	Value	Unit	Test Method
Amine Value	245 - 265	mg/g	ASTM D2896
Color	3	Gardner	ASTM D1544
Viscosity at 25°C	2200 - 2800	cP	ASTM D2196

Typical Properties

EPIKURE Curing Agent 3378
<https://www.hexion.com/en-US/product/epikure-curing-agent-3378>

Generated: May 22, 2019
 Issue Date:
 Revision: 8/1/2007 12:00:00 AM

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Property	Value	Unit	Test Method
Density	8.5	lbs/gal	ASTM D1475
Equivalent Weight Approx.	114	AHEW	
Non-volatile materials	100.0	% by Weight	

Performance Properties

Table 1 / Properties of EPON™ Resin 828 cured with EPIKURE Curing Agent 3378.

	Method	Units	Value
EPON™ Resin 828		pbw	100
EPIKURE Curing Agent 3378		pbw	61

Handling Properties @ 25°C

Gel Time ¹ , 100 gram mass		min	27
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Cured State Properties

Heat Deflection Temperature ²	ASTM D648	°C	44
Tensile Strength ³	ASTM D638	psi	8,739
Tensile Elongation		%	2.6
Tensile Modulus		ksi	496
Compressive Strength ⁴		psi	19,059
Compressive Modulus		ksi	804

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	Method	Units	Value
Hardness ⁵		Durometer D	85
Cure Schedule @ 25°C (77 °F)		days	14

Chemical Resistance			
Water		%	0.1
5% Acetic Acid		%	0.2
50% Xylene/50% Isopropanol		%	1.0

¹ SHYODU Gel Timer

² HDT ASTM D648 (Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position)

³ ASTM D638 (Tensile Properties of Plastics)

⁴ ASTM D695 (Compressive Properties of Rigid Plastics)

⁵ ASTM D2240 (Standard Test Method for Rubber Property-Durometer Hardness)

⁶ Percent weight gain after immersion for 24 hours @ 25°C - specimen size 1/8" X 1" X 3"

Table 2 / Physical properties of HELOXY™ modified EPON Resin 828 cured with EPIKURE Curing Agent EC3378 at the following temperatures: 4, 10, 25 and 121° C.

Composition	Unit	1	2	3	4
EPON Resin 828	pbw	100	88	87	80
HELOXY Modifier 65	pbw		12		
HELOXY Modifier 8	pbw			13	
HELOXY Modifier 62	pbw				20
EPIKURE Curing Agent 3378	pbw	60	60	60	60

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Composition	Unit	1	2	3	4
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Film Properties

1 day		Clear, Slight tack			
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7 days		Clear, Tack-free			
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Cure Conditions		@ 4°C (40°F), 50% Relative Humidity			
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Hardness

24 hours	Durometer D	35	33	33	33
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2 days	Durometer D	85	57	55	47
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7 days	Durometer D	94	89	74	65
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14 days	Durometer D	95	91	86	73
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Film Properties

1 day		Clear, Slight tack			
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7 days		Clear, Tack-free			
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Hardness @ 121°C (250°F)

1 hour	Durometer D	100	99	93	100
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Weight Loss, @ 121°C (250°F)					
24 hours	%	3.37	3.51	3.19	3.49

¹ ASTM D2240 (Standard Test Method for Rubber Property-Durometer Hardness)

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 at: www.hexion.com