

Starting Formulation

SF 1043

Flexible, Impact-Resistant Red Iron Oxide Primer
 EPON™ Resin 1001-CX-75 / EPIKURE™ Curing Agent 3164

Formula	Material	Supplier	Pounds	Gallons
Part A				
	EPON Resin 1001-CX-75	Hexion	208.7	22.98
	Beetle™ U216-8	CYTEC Industries	8.5	1.00
	Xylene™	Shell Chemical Company	45.0	6.25
	Cooperas™ R-5098	Elementis Pigments Inc.	26.7	1.49
	10 ES Wollastocoat™	NYCO Minerals, Inc.	112.0	4.35
	Sparmite™ Barytes	Elementis Pigments Inc.	154.5	4.21
	Zinc Phosphate J-0852	Mineral Pigments Corp.	167.9	6.74
	Micromica™ C-3000	Franklin Industrial Minerals	26.7	1.14
<i>High Speed Disperse to a texture of 5-6 Hegman Scale. Reduce speed, then add</i>				
	Bentone™ SD-2	Elementis Specialties Inc.	7.8	0.54
<i>High Speed Disperse for 10 minutes. Reduce speed, then add</i>				
	Xylene		85.1	11.82
	MIBK		<u>130.2</u>	<u>19.48</u>
	Total Part A		973.1	80.00
Part B				
	EPIKURE Curing Agent 3164	Hexion	100.2	12.37
	Xylene		37.7	5.24
	n-Butanol		<u>16.1</u>	<u>2.39</u>
	Total Part B		154.0	20.00
	Total Part A & B		1127.1	100.00

Mixing Instructions

	Pounds	Gallons
Part A	973.1	80.00
Part B	<u>154.0</u>	<u>20.00</u>

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Part A + B 1127.1 100.00

Typical Formulation Table 1 / Formulation Properties
Properties

	<u>Units</u>	<u>Value</u>
Mix ratio Part A : Part B	By volume	4 : 1
	By weight	6.32 : 1
Binder Stoichiometry (solids basis)	PHR	64
	Equiv. ratio (CA:Epoxy)	1.25:1
Pigment : Binder Weight Ratio		1.6:1
Total weight solids	%	67.2
Total volume solids	%	46.6
Pigment volume concentration (PVC)	%	38.8
Volatile Organic Compound (VOC)	lb/gal	3.70
	g/L	443
Induction Time	min.	45
Potlife	hrs	8+
Viscosity @ 25°C		
	Part A + Part B	KU

Typical Film Table 2 / Film Performance Properties
Properties

Applied to cold-roll steel, cured for 7 days at 77 °F and 55% RH

Performance after 7 days RT cure

	<u>Units</u>	<u>Value</u>
Dry times, drawdowns, 2 mil DFT	mils	1.6-2.0
Set-to-touch	hrs	<0.15
Cotton free	hrs	12.5
Dry Through	hrs	18.5
24-hour pencil hardness		3B
7-day pencil hardness		F
Impact resistance, (Direct/Reverse)	In-lb	100/120
Mandrel Bend Flexibility	in	Pass 1/8
<i>Performance after 1 month FIT cure + 14 days at 140 °F</i>		
Impact resistance, (Direct/Reverse)	In-lb	60/88
Mandrel Bend Flexibility	in	Pass 3/16"
Adhesion	X-cut	5A
MEK double rubs (200 gram weight)		179
60 °C water immersion (2000 hrs)		6M

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00 °C water immersion (2000 hrs)	0.01
Salt spray (2000 hrs)	8F with 12 mm undercutting
Prohesion cyclic salt spray (1300 hrs)	8F with 12 mm undercutting
Cleveland humidity chamber (1300 hrs)	None

Storage Recommendations regarding storage conditions can be obtained by visiting our web site at www.hexion.com

General Information

These are starting formulations and are not proven in the user's particular application but are simply meant to demonstrate the efficacy of the products and to assist in the development of the user's own formulation. It is the user's responsibility to fully-test and qualify the formulation, along with the ingredients, methods, applications or equipment identified herein ("Information"), by the user's knowledgeable formulator or scientist, and to determine the appropriate use conditions and legal restrictions, prior to use of any Information.

Safety, Storage & Handling

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

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Contact Information

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

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

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