

**EPOTUF® 37-614**
Product Code: 37614-00
Aliphatic Polyamine Curing Agent**DESCRIPTION**

EPOTUF® 37-614 is a modified Mannich-Base curing agent for room temperature curing of EPOTUF® epoxy resins.

APPLICATIONS

- Adhesives
- Castings
- Epoxy tooling gel coats and laminates
- Patching compounds and machinery grouts
- Floor topping
- Epoxy terrazzo

FEATURES

- Excellent curing characteristics even in thin films and in humid conditions
- Good moisture and chemical resistance
- Allows high filler loadings
- Can be used with both liquid epoxy and novolac epoxy for a variety of end uses

PROPERTIES

Viscosity at 25°C	4,500
Color, Gardner	7 max.
Pounds per Gallon, Solution	9.00
Specific Gravity, 25/25°C	1.08
Mix Ratio, phr, 190 EEW Liquid Epoxy, on Solids	26
Amine Hydrogen Equivalent Weight, Theoretical	50
Pot Life with EPOTUF® 37-140, Minutes at 25°C, 100 Gram Mass	14

STORAGE

Store in a cool, dry place, preferably under 80°F to ensure a useful shelf life of at least six months.

Read the EPOTUF® 37-614 Material Safety Data Sheet before handling, storing, or using this product.

The information herein is general information designed to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We require customers to inspect and test our products before use and to satisfy themselves as to contents and suitability for their specific applications. We warrant that our products will meet our written specifications. **Nothing herein shall constitute any other warranty express or implied, including any warranty of merchantability or fitness for a particular purpose**, nor is any protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is limited to replacement of our materials and in no event shall we be liable for special, incidental or consequential damages.

SUGGESTED FORMULATIONS

Black High Solids Spraying Enamel
EB-37614A

Component A

<u>Lbs.</u>	<u>Gals.</u>	<u>Material</u>	
392.3	40.44	EPOTUF® 37-140	
161.2	20.00	PM Acetate	
92.7	12.79	Xylene	
12.2	0.81	Special Black 5	(1)
4.1	0.47	Texaphor 277D	(2)

High-speed disperse:

17.0	0.92	Cab-O-Sil M5	(3)
3.4	0.43	Troykyd 366 Anti-Crater	(4)
<u>27.7</u>	<u>4.14</u>	Methyl Isobutyl Ketone	
710.6	80.00	TOTAL	

Component B

102.2	11.36	EPOTUF® 37-614	
44.4	6.12	Toluene	
<u>18.3</u>	<u>2.52</u>	Xylene	
164.9	20.00	TOTAL	
875.5	100.0	TOTAL COMPONENTS A + B	

Analysis:

3.20	Pigment Volume Concentration, Percent
0.058	Pigment/Binder Ratio
869	Spread at 1 Mil., Ft ² per Gallon
60.48	Percent Solids, Weight
54.18	Percent Solids, Volume
8.75	Pounds per Gallon
	VOC
414	Grams per Liter
3.45	Pounds per Gallon

Suppliers:

(1) Degussa	(3) Cabot Corporation
(2) Henkel Corporation	(4) Troy Chemical Corporation

Concrete Repair Compound
EB-37614B

Component A

<u>Lbs.</u>	<u>Gals.</u>	<u>Material</u>	
631.4	68.63	EPOTUF® 37-614	

Component B

82.1	9.12	EPOTUF® 37-614	
157.8	19.98	EPOTUF® 37-620	
<u>75.8</u>	<u>2.27</u>	TiPure R-900	(1)
314.9	31.37	TOTAL	
946.3	100.0	TOTAL COMPONENTS A + B	

Analysis:

2.28	Pigment Volume Concentration, Percent
0.087	Pigment/Binder Ratio
100.0	Percent Solids, Weight
100.0	Percent Solids, Volume
9.47	Pounds per Gallon
	VOC
0	Grams per Liter
0	Pounds per Gallon

Suppliers:

(1) DuPont

TYPICAL PERFORMANCE DATA

Typical Properties

Unfilled Castings Cured with EPOTUF® 37-614 vs. Triethylenetetramine

	EPOTUF® 37-140	EPOTUF® 37-140
Epoxy Resin	EPOTUF® 37-614	TETA
Epoxy Hardener	35 – 40	33 – 38
Hardness, Barcol, 934-1	99 – 04 / 210 – 220	102 – 107 / 215 – 225
Heat Distortion Temperature, °C / °F	12 – 14,000	9 – 10,000
Tensile Strength, psi	4 – 5	2 – 3
Tensile Elongation, psi	20 – 23,000	20 – 22,000
Flexural Strength, psi	4.2 – 4.5	4.0 – 4.3
Flexural Modulus, psi × 10 ⁻⁵		
Water Absorption, Percent Weight		
24 Hours at 25°C/77°F / 2 Hours at 100°C/212°F	0.1 – 0.2 / 0.7 – 0.8	0.1 – 0.2 / 0.6 – 0.7
Cure Schedule	24 Hours at 25°C/77°F	24 Hours at 25°C/77°F
	+2 Hours at 121°C/250°F	+2 Hours at 121°C/250°F
Tack Free Time at 24°C/77°F, 10 Mil Film, Hours	1.0 – 1.5	3.5 – 4.0
Time to Barcol 10 to 20 at 25°C/77°F, 1/8" Thickness, Hours	6 – 7	24 – 26

SUGGESTED FORMULATION

**High Solids Yellow Tanklining Primer
Using EPOTUF® 37-140, 37-614 and 37-631**

Component A

<u>Lbs.</u>	<u>Gals.</u>	<u>Material</u>	
337.4	34.79	EPOTUF® 37-140	
8.5	1.07	Antiterra U	(1)
93.7	12.92	Aromatic 100	
72.4	10.73	n-Butanol	
25.3	1.87	Bentone SD-2	(2)
168.7	4.90	Tronox CR-800	(3)
42.2	1.26	YLO-2288D Yellow Iron Oxide	(4)
295.3	12.46	Nyral 300	(5)
1043.5	80.00	TOTAL	

High-speed disperse to 4-5 Hegman.

Component B

38.0	4.22	EPOTUF® 37-614
38.0	4.47	EPOTUF® 37-631
29.0	4.26	Methyl n-Amyl Ketone
<u>51.0</u>	<u>7.05</u>	Aromatic 100
156.0	20.00	TOTAL
1199.5	100.00	TOTAL COMPONENTS A + B

Analysis:

79.1	Percent Solids, Weight
64.5	Percent Solids, Volume
12.0	Weight/Gallon, Pounds
1.29/1	Pigment to Binder, Weight Ratio
31.8	Pigment Volume Concentration, Percent
100/23	Epoxy to Curing Agent, Weight Ratio
	VOC
2.5	Pounds per Gallon
300	Grams per Liter

Suppliers:

(1) Byk-Chemie	(4) Pfizer
(2) Elementis	(5) R. T. Vanderbilt
(3) Kerr McGee Corp.	

TYPICAL PERFORMANCE DATA

Film Properties

Combine Components A and B (4:1 by volume)
approximately 20 minutes prior to application. Spray unreduced.

Pot Life, Hours	~4
Dry Time, 3 MWFT, Set-to-Touch, Hours	1
Tack Free, Hours	5
Through Dry, Hours	8

Typical Properties

Based on 7-Day Ambient Cure 4 Mil Films on Polished CRS (unless otherwise noted)

Pencil Hardness	3H
Adhesion, Crosshatch	
Polished CRS	100%
Unpolished CRS	90%
Aluminum	85%
Chemical Resistance, 8-Hour Spot Tests, 5 Mil Film	
10% Acetic Acid	Good
10% Sulfuric Acid	Excellent
10% Sodium Hydroxide	Excellent
Xylene	Excellent
Methanol	Good
Humidity Resistance, QCT Cabinet	
Hours	1000
Blisters	None
Corrosion Resistance, Salt Fog	
Hours	500
Scribe Blisters	None
Scribe Corrosion Creep	1/8"
Field Blistering	None
Field Rusting	None