REICHHOLD

PRODUCT BULLETIN

October 2005

EPOTUF® D808-XD-71

(formerly AROFLINT® D808-XD-71)

Product Code: 15039-00

Polyester Component for Two-Package Polyester Epoxy Systems

DESCRIPTION

EPOTUF® D808-XD-71 is a high acid value polyester supplied in an aromatic solvent blend. It is used in combination with EPOTUF® 607, an oxirane-modified ester.

APPLICATIONS

- High-performance coatings where excellent appearance, toughness, and wear resistance are required
- Tile-like wall coatings and floor finishes, transportation equipment finishes, implement and tool finishes, marine finishes, and factory-finished paneling are typical uses.

FEATURES

- May be formulated to the 3.0 to 3.5 pounds per gallon VOC range
- Offers excellent stain and chemical resistance
- Responds rapidly to a wide range of heat curing cycles
- Adheres to a broad range of metal substrates and some plastics, such as ABS and SMC
- Gives good pot life in the mixed system

PROPERTIES

Percent Solids, Weight	70 – 72
Percent Solids, Volume	55.1 approx.
Viscosity at 25°C	
Stokes	5 – 10
Gardner-Holdt	S – W approx.
Color, Gardner	5 max.
Acid Value, on Solids	120 approx.
Pounds per Gallon, Solution	10.75 – 10.95
Pounds per Gallon, Solids	13.97 approx.
Specific Gravity, 25/25°C	1.3 approx.
Solvent, Weight Percent	Xylene/PM Acetate/Isopropanol (50/13/37)

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® D808-XD-71 Material Safety Data Sheet before handling, storing, or using this product.

919-990-7500 • 800-448-3482 • P.O. Box 13582, Research Triangle Park, NC 27709 USA • 2400 Ellis Road, Durham, NC 27703 USA • www.reichhold.com

SUGGESTED FORMULATION

High Gloss Enamel
2437-47

Part I – Pigment Dispersion

Lbs.	Gals.	Material	
125.0	14.88	EPOTUF® 607	(1)
10.0	1.37	MPA 2000-X	(2)
2.0	0.25	Flow Control Agent, Modaflow 25% in Xylol	(3)
275.0	8.31	Titanox 2101	(4)
Disperse on high-speed mixer to a 7½ N.S. and add:			
112.8	12.43	EPOTUF® 607	(1)
94.6	11.76	PM Acetate	
619.4	50.00	TOTAL	

Part II – Clear Activator

450.7	41.54	EPOTUF® D808-XD-71	(1)
68.2	8.46	PM Acetate	
1138.3	100.0	TOTAL	

Analysis:

73.4	Percent Solids, Weight
60.2	Percent Solids, Volume
1:1	Volume Mix Ratio
0.5/1	Pigment/Binder Ratio
57/43	Polyester/Epoxy Ratio, Weight-Solids
55 – 75	Viscosity, #2 Zahn, Seconds
3.09	VOC, Pounds per Gallons, Calculated
370	VOC, Grams per Liter, Calculated

Suppliers:

(1) Reichhold
(2) Elementis
(3) Monsanto
(4) Kronos

TYPICAL PERFORMANCE DATA

Film Compatibility

	Solids Ratio (D808/607)		
10% Modification on Total Solids	**40/60**	**50/50**	**60/40**
Vinyl Resin, Bakelite VAGH, Union Carbide	C	C	I
Nitrocellulose, ¼ Second	C	C	C
Short Oil Soya Alkyd, AROPLAZ® 6008-X-50	C	C	C
Short Tall Oil Alkyd, BECKOSOL® 6065-X-60	C	C	C
Medium Oil Soya Alkyd, BECKOSOL® 1247-T-70	C	C	C
Long Oil Soya Alkyd, BECKOSOL® 1271	C	C	C
20% Modification on Total Solids			
Nitrocellulose, ¼ Second	C	C	C

Drying Data
Based on 1.5 Mils Clear Film

	Solids Ratio (D808/607)		
	52/48	**57/43**	**62/38**
500g Zapon Tack, Hours	2½	2½	2

Bake

	Solids Ratio (D808/607)		
Sward Hardness, After 250°F Bake for	**50/50**	**55/45**	**60/40**
10 Minutes	30	44	32
30 Minutes	48	52	56
60 Minutes	52	60	50

Chemical Resistance

	Exp. Time (Hours)	Rating
5% NaOH	4	Good
	24	Good
10% NH_4OH	24	Excellent
50% Acetic Acid	24	Good
10% HCl	24	Excellent
10% H_2SO_4	24	Excellent
1% Tide (Proctor & Gamble)	24	Excellent
Gasoline	24	Fair
Xylene	4	Fair
	24	Fair
Water	24	Excellent
Acetone	1	Fair

50% Ethyl Alcohol	20	Excellent

SUGGESTED FORMULATION

High Solids Direct-to-Metal Black Epoxy Enamel
Using EPOTUF® D808-XD-71 and 607

Component A

Lbs.	Gals.	Material	
322.6	38.40	EPOTUF® 607	
1.9	0.23	Modaflow	(1)
2.7	0.35	Nuosperse 657	(2)
9.1	1.25	MPA 2000X	(3)
236.6	9.77	Wollastocoat 10ES	(4)
572.9	50.00	TOTAL	

High-speed disperse to at least 7 NS.

Component B

453.1	41.76	EPOTUF® D808-XD-71	
1.8	0.23	Nuosperse 657	
46.6	6.79	Methyl Amyl Ketone	
4.6	0.34	Bentone SD-2	(3)
12.8	0.88	Raven 1255	
518.9	50.00	TOTAL	
1091.8	100.00	TOTAL COMPONENTS A + B	

Analysis:

82.9	Percent Solids, Weight
73.2	Percent Solids, Volume
10.9	Weight per Gallon, Pounds
0.39/1	Pigment to Binder, Weight Ratio
15.0	Pigment Volume Concentration, Percent
1.85	VOC, Pounds Per Gallon
222	VOC, Grams Per Liter

Suppliers:

(1) Monsanto
(2) CONDEA Servo LLC
(3) Elementis
(4) NYCO

TYPICAL PERFORMANCE DATA

Film Properties

Thoroughly Mix Components A and B 1:1 by Volume
Approximately 30 Minutes Prior to Use

Viscosity, Seconds, #2 Zahn Cup	23
Dry Time, 5 Mil Wet Film, Hours	
Set Dry	1.5
Through Dry	4.5
10 Mil Wet Film, Hours	
Set Dry	3.0
Through Dry	6.5

Corrosion Resistance

Salt Fog, 5 MDFT on Blasted Steel

Hours	300
Field Blisters	None
Field Rust	None
Scribe Blisters	4M
Scribe Creep	1/16”
Tape Adhesion	40%

Typical Properties

Based on 7-Day Ambient Cure

Gloss	
60°	90
20°	68
Pencil Hardness	F
Impact Resistance	
Direct	20
Reverse	<10
Solvent Resistance, 100 MEK Double Rubs	<4B Marred, Soften
Chemical Resistance, 4 Hour Spot Test, Covered	
10% Acetic Acid	2
10% Sulfuric Acid	5
10% Sodium Hydroxide	5
10% Hydrochloric Acid	5
Acetone	1
Xylene	1
Methanol	2
Water	5
Durability, QUV A340, 300 Hours	
Gloss	
60°	83
20°	46