



EPOTUF® 37-685

Waterborne Epoxy Curing Agent

EPOTUF® 37-685 Waterborne Epoxy Curing Agent from Reichhold provides the corrosion protection of solventborne coatings with waterborne chemistry.

Coatings based on this new curing agent and EPOTUF 37-143 epoxy dispersion provide excellent corrosion resistance, equivalent to many solventborne systems.

Where other waterborne epoxy systems tend to exhibit blistering and/or delamination when exposed to moisture, EPOTUF 37-685 produces coatings with exceptional adhesion to steel.

Primers based on EPOTUF 37-685 and 37-143 have VOC levels below 100 grams per liter, meeting the new SCAQMD regulations in California.

Feature - Benefits

Feature	Benefit
Excellent corrosion resistance	Performance comparable to solventborne systems
Excellent metal adhesion	Film maintains adhesion in high humidity environments
Low VOC, <100 g/l primer	Meets new SCAQMD regulations for IM coatings
Fast dry time	Early return to service
Stable film performance over 4 hr pot life	User friendly, better job consistency, reduced paint waste
Low Odor	Better worker environment
Non-HAPS	Regulatory compliant
Good in-can coating stability	Longer shelf life, performance consistency
Freeze-thaw stable	Simpler shipping and longer storage

End Use Applications

Application	Comment
Medium - Heavy Duty Maintenance Primers	Waterborne primers with excellent corrosion resistance and good metal adhesion @ <100 g/l VOC for non-immersion service
Light Duty Direct-to-Metal Coatings	Waterborne coatings for railings, gratings, stairways, etc., brush and roller applied
Concrete Sealers, Primers and Topcoats	Easy application, good wetting and adhesion to concrete
Rail & Transportation Coatings	Good corrosion protection in exterior primer applications

Performance vs Competitive WB and Commercial SB Coatings

EPOTUF 37-685 was compared to a commercial solventborne epoxy primer and a competitive waterborne resin system. EPOTUF 37-685 has faster tack free dry time, higher pencil hardness and superior MEK resistance than the commercial solventborne benchmark.

System:	EPOTUF® 37-685				Competitive WB				Commercial SB			
VOC at Application (lb/gal & g/L)	0.77 lb/gal or 92 g/L				0.84 lb/gal or 100 g/L				3.2 lb/gal or 384g/L			
Gardner Dry Time (set / thru / hard)	45 min / 4.5 hr / 7.5 hr				30 min / 1.5 hr / 6 hr				1 hr / 3.5 hr / 5 hr			
Zapon Tack Free (250g/500g, minutes)	65 min / 100 min				100 min / 120 min				180 min / 205 min			
Crosslink Properties, Days	1	3	7	14	1	3	7	14	1	3	7	14
König Hardness	84	98	97	114	59	83	97	95	29	67	88	100
Sward Hardness	11	13	14	13	10	12	13	12	9	11	13	13
Pencil Hardness	2H	3H	6H	6H	HB	2H	2H	3H	HB	HB	HB	HB
Impact Resistance (D/R)	40 / <5				50 / <5				30 / <5			
Cross-Hatch Adhesion	5B				5B				5B			
MEK Double Rubs (to film break)	83	292	>1000	>1000	104	378	654	935	34	100	191	395
Average DFT, mils:	2.2				2.2				2.2			

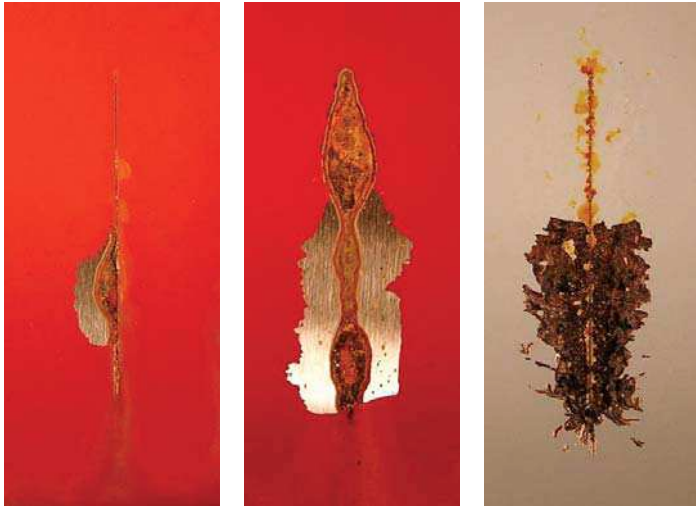
Prohesion 900 hours

The photos below show corrosion results after 900 hours prohesion testing. The panels are CRS coated at 2 mil dry film thickness and adhesion was tested with tape pull after exposure. The corrosion protection is superior to the commercial solventborne benchmark. The corrosion protection and adhesion is superior to the competitive waterborne system.

EPOTUF® 37-685

Competitive WB

Commercial SB



Tape pull, scribed before exposure, 2 mil DFT, CRS

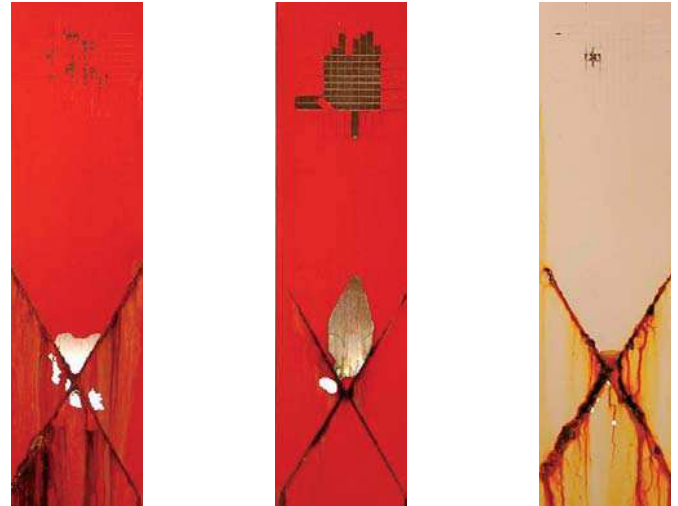
Salt Fog 1000 Hours

The photos below show corrosion results after 1,000 hours salt fog testing. The panel was crosshatched after exposure and adhesion was tested by tape pull. The EPOTUF 37-685 corrosion creep is superior to and the crosshatch adhesion is comparable to the commercial solventborne benchmark. The adhesion is vastly superior to the competitive waterborne system.

EPOTUF® 37-685

Competitive WB

Commercial SB



Tape pull, scribed before exposure, crosshatched after exposure, 2 mil DFT, CRS

For more information on Reichhold's complete line of EPOTUF products, contact your Reichhold sales representative or call the Coatings Technical Hotline at 800-431-1920.

REICHHOLD

Reichhold
P.O. Box 13582
Research Triangle Park, NC 27709
(919) 990-7500 (ph) • (800) 431-1920 (toll-free)
www.Reichhold.com

The information herein is to help customers determine whether this product is suitable for their applications. Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before using them to satisfy themselves as to contents and suitability. 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 protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials, and in no event shall we be liable for special, incidental, or consequential damages.

Reproduction of all or any part is prohibited except by permission of authorized Reichhold personnel.
Copyright © 2006 by Reichhold, Inc.
All Rights reserved.