



Polyflex[®]
PROVEN AND PERFECTED

POLYFLEX 304

ULTRA-CHEM

DESCRIPTION

Polyflex 304 is a high-performance Polyurea Hybrid membrane designed for the protection of steel and/or concrete substrates. Polyflex 304 is engineered for industrial applications requiring superior chemical resistance, waterproofing or elements buried in soil.

PRODUCT FEATURES

- Fast drying
- Exceptional corrosion resistance
- Excellent waterproofing
- Direct application to properly prepared steel surfaces
- Superior chemical resistance
- Solvent free, 100% solids
- Provides structural reinforcement
- Can be applied with low pressure, static mixer equipment

RECOMMENDED USES

- Secondary containment
- Truck and bed liners
- Mining industries
- Steel pipe protection (interior/exterior)
- Repair or replace existing membranes
- Concrete pipe protection (interior/exterior)
- Superior protection against petroleum and chemicals

TECHNICAL DATA

Color:	Available in several colors	Flash Point:	> 149°C (300.2°F)
Type of Cure:	2 components	V.O.C.:	0
Binder:	Polyurea/Polyurethane	Drying times:	
Solids by volume:	100 %	Gel Time:	25 - 35 seconds
Solids by Weight:	100 %	Tack Free:	2 - 4 minutes
Theoretical Coverage of 1 mil:	1604 ft ² / U.S. gallon	To recoat:	30 minutes
D.F.T. at 25 microns:	149 m ² / 3.78 litres	Hard:	8 hours
Recommended D.F.T.:	30 – 100 mils	Catalyst:	304C
	750 – 2500 microns	Ratio:	1:1
Resin viscosity:	700 CPS @ 25°C (77°F)	Shelf life:	1 year
Isocyanate viscosity:	700 CPS @ 25°C (77°F)	Packaging:	18.93 litres (5 U.S. gallons) 205 litres (55 U.S. gallons)

Revised 6/5/2013



APPLICATION GUIDE

SURFACE PREPARATION: See Polyval's Polyurea Application Guide

CLEANING INSTRUCTIONS: Cleaning agent: Toluene, Xylene, MEK. To reduce the risk of fire, use glycol ether acetate or any enviro-friendly chlorinated solvent

APPLICATION PROCESS: Plural component heated pump. In order to obtain the optimum results outlined below system must be capable of applying at a pressure greater than 2,500 PSI at a temperature of 70°C (160°F). Before application, the receiving coat surface must be cleaned of dirt, soluble salts, dust, oils, grease, chalking, and contaminants. Normal preparation includes vacuum, blow-off, SSPC-SP-1 "solvent cleaning," or water-wash containing salt solubilizing agents. This product is normally applied over previously primed surfaces. For more details on the surface preparation of the primer, see that specific data sheet. Scuff sanding is required before recoating. Clean in accordance with SSPC-SP-1 "solvent cleaning" before recoating. *Take care to ensure that proper film thickness is achieved. For more information, consult the Steel Structures Painting Council (SSPC) publication, Good Painting Practice.*

* Can be applied with low-pressure, static mixer equipment at room temperature.

PHYSICAL PROPERTIES

Properties under tension:

(ASTM D 412-C)

Ultimate Elongation = 30 %
Tensile Strength = 29.8N/mm² (4325 PSI)

(ASTM D 412-C)

Indication of hardness:

(ASTM D 2240)

65-70 Shore D

Resistance to tearing:

(ASTM D 624-C)

Tear strength = 51.9 N/mm (296 PLI)

Mandrel Bend test:

(ASTM D-522)

Pass: ¼ in.

Taber abrasion resistance: (ASTM D-4060) 1000 cycles, 1000g load	Abrasion wheel type	Average weight loss
	CS - 10	N/D
CS - 17	53.9 mg	
H - 18	485 mg	

Impact resistance:

(ASTM D 2794)

Direct @ 25°C (77°F): 80 in-lb. (9.0 joules)

Direct @ 4°C (40°F): 72 in-lb. (8.1 joules)

DISCLAIMER:

"The following is made in lieu of all warranties, expressed or implied: Manufacturer's obligation shall be to replace such quantity of the product proven to be defective. The manufacturer shall not be liable for any injury, loss or damage, direct or incidental or consequential, arising out of the use of or the inability to use the product. Before using, the user shall determine the suitability of the product for the intended use and the user assumes all risk and liability whatsoever in connection therewith. All values shown are approximations. Values indicated are for guide purposes only, as actual values can change due to application conditions, application methods, environmental conditions etc. The information contained herein is subject to change without notice. Consult your representative for a current data sheet. The foregoing may not be altered except by an agreement signed by the officers of the manufacturer." © Polyval Coatings Inc. Polyflex and Polyval are registered trademarks of Polyval Coatings Inc. All Rights Reserved.

Keep in cool and dry area. See the material safety data sheet and product label for complete safety and precaution requirements.

Chemical resistance information is currently being updated according to ASTM standards. Please contact your local representative for an update.