



### DESCRIPTION

**Polyflex 311** is a high-performance multi-purpose Polyurea membrane with a **longer gel time**. It is designed for general industrial application where abrasion resistance and/or waterproofing or better leveling are required.

### PRODUCT FEATURES

- Protective membrane on metal, masonry, wooden reservoirs, silos and many kinds of pipes and stone slabs
- Repair or replace existing membranes
- Application on geotextile to form ponds, to retain overflow, prevent effluent leakage, water and petroleum product leakage
- Excellent resistance to the calorific impact
- Polyflex 311FR, meet ULC/ORD-C58.9 fire standard

### RECOMMENDED USES

- Excellent for garage and parking decks
- Truck bed liners
- Mining industries
- Secondary containment
- Repair or replace an existing membrane
- Pipe applications (exterior)

### TECHNICAL DATA

<b>Color:</b>	Available in several colors	<b>Flash Point:</b>	> 149°C (300.2°F)
<b>Type of Cure:</b>	2 components	<b>V.O.C.:</b>	None
<b>Binder:</b>	Polyurea	<b>Drying times:</b>	
<b>Solids by volume:</b>	100 %	<b>Gel Time:</b>	10 - 15 seconds
<b>Solids by Weight:</b>	100 %	<b>Tack Free:</b>	20 – 30 seconds
<b>Theoretical Coverage of 1 mil:</b>	1604 ft <sup>2</sup> / US gallon	<b>To recoat:</b>	12 hours
<b>D.F.T. at 25 microns:</b>	149 m <sup>2</sup> / 3.78 litres	<b>Hard:</b>	8 hours
<b>Recommended D.F.T.</b>	30 – 100 mils	<b>Catalyst:</b>	301C
	750 – 2500 microns	<b>Ratio:</b>	1:1
<b>Resin viscosity:</b>	1100 CPS @ 25°C (77°F)	<b>Shelf life:</b>	1 year
<b>Isocyanate viscosity:</b>	600 CPS @ 25°C (77°F)	<b>Packaging:</b>	18.93 litres (5 US gallons) 205 litres (55 US gallons)

Revised 3/7/2013



### 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.*

### PHYSICAL PROPERTIES

**Properties under tension:**

(ASTM D 412-C)

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Ultimate Elongation = 370 %  
Tensile Strength = 13.79N/mm<sup>2</sup> (2000 PSI)

**Resistance to tearing:**

(ASTM D 624-C)

Tear strength = 63.9 N/mm (365 PLI)

**Impact resistance:**

(ASTM D 2794)

Direct @ 77°F (25°C): > 160 in-lb (>18 joules)  
Reverse @ 77°F (25°C): > 160 in-lb (>18 joules)  
Direct @ -4°F (-20°C): > 160 in-lb (>18 joules)  
Reverse @ -4°F (-20°C): > 160 in-lb (>18 joules)

**Indication of hardness:**

(ASTM D 2240)

45 Shore D

**Mandrel Bend test:**

(ASTM D-522)

Pass at -45°C (-49°F)  
(Mandrel ¼ "in.)

**Taber abrasion resistance:**

(ASTM D-4060)

1000 cycles, 1000g load

Abrasion wheel type	Average weight loss
CS - 10	N.D.
CS - 17	22.9 mg
H - 18	N.D.

**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.