

### DESCRIPTION

**Polyflex 201** is a high-performance **Polyurea membrane** designed to provide excellent waterproofing, anti-corrosive protection and abrasion resistance in a wide variety of climatic conditions. Especially well suited for full water immersion, Polyflex 201 delivers excellent protection and durability.

### FEATURES

- Superior anti-corrosive protection for metal, wood and masonry substrates
- Ideal for use in secondary containment (effluent, water, petroleum product) and water treatment
- Excellent abrasion resistance
- Application on geotextile to form ponds, to retain overflow, prevent effluent, water and petroleum product leakage
- Repair or replacement of existing membranes
- Approved for accidental food contact by



### RECOMMENDED USES

- Waste-water treatment plants
- Secondary containment
- Pulp and paper mills
- Food processing facilities
- Refineries
- Concrete waterproofing

### 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>	0
<b>Binder:</b>	Polyurea	<b><u>Drying times:</u></b>	
<b>Solids by volume:</b>	100 %	<b>Gel Time:</b>	5 - 10 seconds
<b>Solids by Weight:</b>	100 %	<b>Tack Free:</b>	10 - 30 seconds
<b>Theoretical Coverage of 1 mil:</b>	1604 ft <sup>2</sup> / U.S. gallon	<b>To recoat:</b>	12 hours
<b>D.F.T at 25 microns:</b>	149m <sup>2</sup> / 3.78 litres	<b>Hard:</b>	8 hours
<b>Recommended D.F.T.:</b>	30 - 100 mils	<b>Catalyst:</b>	201C
	750 - 2500 microns	<b>Ratio:</b>	1:1
<b>Resin viscosity:</b>	550 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 U.S. gallons) 205 litres (55 U.S gallons)

Revised 6/5/2013

### APPLICATION GUIDE

**SURFACE PREPARATION:** See the Polyflex 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

<b>Properties under tension:</b> (ASTM D 412-C) (ASTM D 412-C) (ASTM D 882-97)	Ultimate Elongation = 400 % Tensile Strength = 13.79 N/mm <sup>2</sup> (2000 PSI) Modulus of Elasticity = 73.7 MPa	<b>Indication of hardness:</b> (ASTM D 2240)	47 – 53 Shore D
<b>Resistance to tearing:</b> (ASTM D 624-C)	Tear strength = 87.7 N/mm (500 PLI)	<b>Cathodic Disbondment of pipeline coatings</b> (ASTM G8-96)	< 3mm radius
<b>Linear Thermal Expansion:</b> (ASTM E 381-00) modified	Mean coefficient of Linear Expansion (black sample) from -30°C to -40°C = 168 µm/m°C	<b>Dielectric strength:</b> (ASTM D-149-97a)	= 19.3 KV/mm (490 V/mil)
<b>Resistance in compression:</b> (ASTM D 1621-00)	= 2776.6 kPa (10 %)	<b>Flexibility at cold temperature:</b> (ASTM) D-3111	Conditioned at - 40°C (- 40°F) for 24 hours Tested at 23°C (73.4°F) with mandrel ½ inches
<b>Flexural Secant Modulus at 2 % strain:</b> (ASTM D790-00)	= 165.4 kN/m	<b>Slip resistance:</b> (ASTM F -1679)	Overall average COF: > 0.97
<b>Resistance to interperate:</b> Conditions (ASTM G-63)	No cracking, peeling or loss of integrity after 2000 hours.	<b>Impact resistance:</b> (ASTM D 2794)	Direct @ 25°C (77°F): > 160 in-lb. (>18 joules) Reverse @ 25°C (77°F): > 160 in-lb. (>18 joules) Direct @ -20°C (-4°F): > 120 in-lb. (>13.56 joules) Reverse @ -20°C (-4°F): > 100 in-lb. (>11.35 joules)
<b>Water Permeability:</b> (NFP D 84-515)	0.0036 perm@1630 micron (65 mils) thick sample	<b>Water Absorption</b> (ASTM D-471)	24 hours at ambient temperature, 1.5 %

Taber abrasion resistance: (ASTM D-4060) 1000 cycles, 1000g load	Abrasion wheel type		Average weight loss	
	CS - 10		16.9 mg	
	CS - 17		22.6 mg	
H - 18		307 mg		
Chemical Resistance: (ASTM D 543) Immersion for 1 Month	CHEMICAL	ABSORPTION	DIMENSIONAL CHANGE	
	3 % sulfuric acid	2.0 %	None	
	30 % sulfuric acid	1.4 %	None	
	10 % sodium hydroxide	1.6 %	None	
	50 % sodium hydroxide	0.0 %	None	
	Motor Oil	0.16 %	None	
Transmission Oil	0.69 %	None		

**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.