

Urochem 211

HIGH CHEMICAL RESISTANT POLYURETHANE SEALANT

DESCRIPTION

Urochem 211 is a two-component sealing compound based on a hydrophobic polyurethane resin and an isocyanate curing agent. The system crosslinks to produce a tough, durable rubber like seal. Its unique chemistry ensures that it is unaffected by high concentrations of acids, alkalis, and water-soluble salts.

PRODUCT APPLICATION

Typical applications include its use in both vertical and horizontal joints in bonded areas designed to contain chemical spills, sewerage treatment plants, sumps, laboratories, and chemical manufacturing plants.

SURFACE PREPARATION

The correct preparation of the joint faces is absolutely essential to the satisfactory performance of the sealant. All surfaces should be clean, sound, and dry, and laitance or surface contamination should be removed by thorough wire brushing, grinding or grit blasting. Vacuum or blow with compressed air to ensure thorough removal of dust. Metal surfaces should be free of mill-scale and rust and mild steel treated with a suitable anticorrosive primer.

APPLICATION

Priming: For porous or friable surfaces, where severe conditions are expected, or continuous immersion is anticipated use **Urochem 101** or **Urochem 106 Epoxy Primer**. Mix base and activator thoroughly and apply the mixed material with a brush to the joint faces ensuring complete coverage. Particular attention should be paid to any voids and hollows. Allow at least 30 min. for the solvent to evaporate before applying the sealant. After approximately 3 hours or once the primer has lost its tack, re-priming is required. Protect the primed surface from dust and dirt which could coat it and interfere with the adhesion of the sealant.

BOND BREAKER

To ensure proper movement of the joint a bond breaker must be used at the base of the joint. Where a backing material such as polyethylene foam rod is used to ensure the correct joint geometry a bond breaking tape is not required. For water retaining structures care must be taken to comply with design requirements.



Urochem Trading (Pty) Ltd

Unit XP2, AEL Industrial complex, Cnr Ecqip and Weighbridge
Modderfontein, Gauteng; 1645

(+27) 11 608 2073 • www.urochem.co.za

Urochem 211

HIGH CHEMICAL RESISTANT POLYURETHANE SEALANT

MIXING

- Mix the base thoroughly using an electric drill fitted with a suitable mixer before adding all of the activator and remixing.
- Fill the sealant into a closed barrel gun using a follower plate or small trowel. Gun into the joint using a continuous squeezing of the trigger to ensure a smooth continuous flow of material.
- Fill the joint from the bottom up and ensure that there is contact between the sealant and joint surfaces.
- To ensure contact of the sealant with the walls of the joint, the sealant should be tooled to a smooth finish using a rounded spatula. A soapy solution may be used to aid the process. Remove any masking tape applied before cure has commenced.

JOINT DESIGN

- The minimum width and depth of a joint should be 6 by 6 mm. Horizontal joints, where possible, should be at least 12 mm and not more than 25 mm deep. The depth of the joint should never exceed its width. Except in the case of water retaining structures and where shear movement is anticipated the ratio of width to depth of 2:1 should if possible be maintained. This ratio provides the optimum geometry to allow movement to occur within the joint without placing excessive force on the joint faces.
- Joint faces should be parallel, and the joint width should be at least six times the maximum anticipated movement. When placing the sealant, the joint opening should be central to its maximum compression/expansion cycle.

CLEANING

Clean all tools and equipment with **Urochem 901** before setting of the sealant has taken place.

SAFETY

Contact with skin should be avoided by wearing gloves and protective clothing. In case of eye contact wash well and obtain medical advice.



Urochem Trading (Pty) Ltd

Unit XP2, AEL Industrial complex, Cnr Ecqip and Weighbridge
Modderfontein, Gauteng; 1645

(+27) 11 608 2073 • www.urochem.co.za

Urochem 211

HIGH CHEMICAL RESISTANT POLYURETHANE SEALANT

TYPICAL PROPERTIES

Mixing Ratio	Twin pack - Do NOT split kits
Pot Life	20 Min @ 25° C
Tac free	1 Day
Full Cure	7 Days
Colour	Grey - Other colours available
Density	1,49 g/cm ³
Hardness	+ 35 - 40 Shore A
Movement Accommodation	15%
Theoretical coverage	See Material Estimating Guide below
Chemical resistance	Most acids, alkalis & salts
Shelf Life	9 Months
Application Temp.	5 - 35°C
Service Temp.	-25 - 90°C
Pack Size	2 Lt Kits
Cleaning	Urochem 901
Storage	Store in a cool dry place



Urochem Trading (Pty) Ltd

Unit XP2, AEL Industrial complex, Cnr Ecqip and Weighbridge
Modderfontein, Gauteng; 1645

(+27) 11 608 2073 • www.urochem.co.za

Urochem 211

HIGH CHEMICAL RESISTANT POLYURETHANE SEALANT

MATERIAL USAGE ESTIMATING GUIDE

(No allowance made for wastage)

		Joint width in mm									
		6	8	10	12	15	20	25	30	35	40
Joint depth in mm	6	27	20,8	16,6	13,8						
	8		15,6	12,5	10,42	8,3					
	10			10	8,3	6,6	5				
	12				6,9	5,5	4,2	3,3			
	15					4,4	3,3	2,6	2,2		
	20						2,5	2	1,6	1,4	1,2
	25							1,6	1,3	1,1	1
	30								1,1	0,9	0,8
	35									0,8	0,7
	40										0,6

Lm per Liter, excluding wastage

CHEMICAL RESISTANCE CHART

Rating System	A - Little or minor effect B - Minor to moderate effect - Spill and splash only U - Unstable
----------------------	--

Test Method	8 weeks immersion. Please consult our technical department on your exact requirements as conditions of use can affect the results obtained
--------------------	--

Chemical	% Conc	Temp in °C	Rating
ACIDS			
HCL	20%	25	A
	30%	70	U
H2SO4	20%	25	A
		70	B
	50%	25	A
		70	B
	70%	25	U
HNO3	30%	25	B
		70	U
PEROXIDE			
	50%	25	A
		70	B
	Conc	25	B
		70	U

The information supplied is believed to be reliable. As we do not have any control over the processing or application of the product, we cannot guarantee the results to be obtained. Users assume all risks and liability resulting from the use of this product and must confirm the suitability thereof by conducting their own tests. No guarantee is expressed or implied. Liability is limited to replacement of faulty material. Field service provided does not constitute supervisory responsibility.

FOR PROFESSIONAL USE ONLY



Urochem Trading (Pty) Ltd

Unit XP2, AEL Industrial complex, Cnr Ecqip and Weighbridge
Modderfontein, Gauteng; 1645

(+27) 11 608 2073 • www.urochem.co.za