Urochem 205

TWO-PART CHEMICALLY RESISTANT FAST CURING POLYSULPHIDE JOINT SEALANT "POTABLE WATER RETAINING STRUCTURES"

DESCRIPTION

Urochem 205 is a two-component fast curing sealing compound based on a polysulphide polymer blended with fillers and chemical curing agents, which cures after mixing to form a durable rubber like seal. This sealant is highly elastic and able to withstand continuous extension and recovery. It may be used with most common building materials such as concrete, plaster, brick, and stone. It exhibits superior resistance to many common chemicals, fuel oils and solvents. Also resistant to ultraviolet light and ozone making it ideally suited to drinking water reservoirs. Suitable for exterior use, and for use where the sealant will be subjected to contact with chemicals, solvents, and oils.

PRODUCT APPLICATION

- To form a long-lasting water and weatherproof seal in both horizontal and vertical moving joints and joints which are subject to continuous cyclic movement.
- Typical applications include joints in curtain walls, floor expansion joints, in workshops, factories and garage floors, between pre-cast units and filling station forecourts, and in water retaining structures. (Potable water)
- For runway use where fast cure and Jet blast resistance is a necessity.
- Can be trafficked after 2 hours.

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 the design requirements.

DIRECTIONS

- The recommended minimum joint dimension is 6 x 6mm, but where possible we recommend a 10 x 10mm joint.
- For joints ranging from 6mm to 10mm wide, we recommend a width to depth ratio of 1:1, joint wider than 10mm a 2:1 width to depth ratio should be maintained.
- In water retaining structures a 1:1 ratio should be maintained due to Hydrostatic pressure and cyclic movement.
- These ratios provide 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 four times the anticipated movement.
- When placing the sealant, the joint opening should if possible be central to its maximum compression/expansion cycle.

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 should be treated with **Urochem 617**.

Urochem
Manufacturers of joint sealants & construction chemicals

Urochem Trading (Pty) Ltd
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PRIMING

- For porous or friable surfaces or where severe conditions are expected use **Urochem 614** single pack polyurethane primer. Apply the 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.
- ***Should the primer lose its tack, after approx. 3 hrs, you will need to re-prime.***
- Protect the primed surface from dust and dirt which could interfere with the adhesion of the sealant.

MIXING

- **Urochem 205** is supplied in a two-part kit, base, and activator in separate tins.
- Transfer the total quantity of activator into the base component and mix thoroughly using a slow speed electric drill fitted with a flat blade stirrer.
- Scrape down the sides of the can and the base and remix until the colour is uniform and free from streaks.
- Thorough mixing is essential and should take 5 to 10 minutes.

APPLICATION

- Fill the sealant into a closed barrel gun using a follower plate or small trowel. Gun the sealant 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 curing commences.

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.

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TYPICAL PROPERTIES - AS PER UROCHEM QC

The below properties are based on in-house testing methodologies.

Mixing Ratio	Two component - mix as supplied - Do not part mix
Pot Life	45 Min @ 25°C
Tac free	2 Hours
Full Cure	7 Days
Colour	Grey - Other colours available
Density	1,49 g/cm³
Hardness	25 Shore A
Movement Accommodation Factor	+- 25%
Theoretical coverage	See Material Estimating Guide below
Chemical resistance	Most mild chemicals, fuel, oils & solvents
Shelf Life	12 Months
Application Temp.	5 to 35°C
Service Temp.	-25 to 90°C
Pack Size	2 Lt Kits
Cleaning	**Urochem 901**
Storage	Store in a cool dry well ventilated place away from heat & sunlight

CERTIFICATION

Potable Water Certification WAT-25-1825

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 Litre, excluding wastage									

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CHEMICAL COMPATIBILTY CHART

Chemical							
Aluminium Sulfate Solution (50%)			Dibutyl Carbotol		Isobutyl Alcohol		Phthalic Anhydride (38 % Slurry)
Ammonium Chloride Solution (50 %)			Diethylene Glycol		Isobutyl Isobutryate		Potassium Carbonate
Ammonium Perchlorate (15%)			Ethyl Alcohol		Isopropyl Alcohol		Potassium Carbonate
Ammonium Perchlorate (50%)			2-Ethyl Hexyl Acrylate		Isostearic Acid		Potassium Hydroxide (25 %)
Ammonium Polysulfate			Ethylene Glycol		Jet Fuel (See ASTM Fuels)		Potassium Hydroxide (45 %)
Ammonium Sulfate Solution (30 %)			Ferrous Sulfate (10 %)		Kerosene		Potassium Hydroxide (50 %)
Amyl Alcohol			Fluoboric Acid (10 %)		Lacquer Solvents		Propylene Glycol
ASTM Fuel	A		Feul Oil/Diesel Fuel		Linseed Oil		SAE 10 Oil
	B		Petrol		Lubricating Oils		Shell Tellus Oil 46
	C		Gasohol		Magnesium Chloride Solution (20 %)		Skydrol 500B
	D		Heptane		Magnesium Hydroxide Solution (30 %)		Soap Solutions
Barium Hydroxide (10 %)		Herbicides	Marksman		Maleic Anhydride (25 % Slurry)		Sodium Bicarbonate Solution (25 %)
Borax Solution (25 %)			Hormoban APM		Methanol		Sodium Chloride Solution (25 %)
Boric Acid Solution (20 %)			Aatrex 4L		Methyl Tert-Butyl Ether (98 %)		Sodium Hydroxide Solution (50 %)
Borohydride Solution			Prowl 3,3 EC		Mineral Spirits		Sodium Hydroxide Solution (50 % @ 49 °C)
1-4 Butanediol			Tri-4		Motor Oil (10W40)		Sodium Sulfide (25 %)
Butyl Cellosive			Treflan		N-Butyl Acrylate		Stearic Acid (20 %)
Butyl Dioxitol			Serve 24E		N-Butyl Alcohol		Sulfuric Acid (20 %)
Butyl Oxitol			Sonalan E.C.		Naphtha VM & P		Texanol
Calcium Chloride Solution (50 %)			Hexane		Naphthalene Oil		Transmission Fluid
Calcium Hydroxide (20 %)			Hexane Glycol		Oleic Acid		Urea (10 %)
Calcium Hypochlorite (50 %)			Hydrofluoric Acid (5 %)		Oxalic Acid (20%)		Urea Ammonium Nitrate (32 %)
Chlorinated Water	1 ppm		Hydrofluoric Acid (10 %)		Paraffinic Oil		Vinyl Acetate
	10 ppm		Hydrofluoric Acid (23 %)	Pesticides	Arrosolo 3.3E		Zinc Chloride (10 %)
	100 ppm		Hydrogen Peroxide (3 %)		Eradicane 6.7E		Zinc Nitrate (17 %)
Copper Sulfate Solution (20%)			Hydrogen Peroxide (20 %)		Phenolic Resins		
Cyclohexane			Hydrogen Peroxide (35 %)		Phosphoric Acid (50 %)		

Contact your Urochem representative if any queries arise, other wise RTFM.

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