

PRODUCT CODE 6889 (Gun Grade), 6891 (Pour Grade), 6890 (Primer)

SmartCare Polysulphide Sealant

Smart Care Polysulphide Sealant are two components, chemical resistance elastomeric and joint sealant. Polysulphide Sealant is specifically designed to be used as a watertight seal for moderate movement and control joints. It is based on polysulphide polymer. After curing it form a tough, flexible and nonstaining rubber like seal. It has excellent adhesion to concrete, stone, metal and resistant to many chemicals, shrinkage, aging, Thermal stress and the effects of outdoor exposure. Polysulphide Sealant are of two types, GUN GRADE and POURING GRADE is suitable for use in both vertical and horizontal applications. The sealant has a movement accommodation factor (MFA) of $\pm 25\%$

PRODUCT BENEFITS

- Meet key international standards
- Form a tough, elastic, rubber-like seal
- Accommodates continuous and pronounced cyclic movement
- Excellent adhesion to most common substrates, including primed concrete, glass, aluminium & stainless steel
- High resistance to ageing reduces physical damage due to climatic extremes

PRODUCT FEATURES

- Highly resilient with excellent recovery characteristics
- Provides permanent and uniform watertight seal
- Non-staining
- Excellent resistance to fatigue and stays flexible throughout its service life - won't become brittle, caulk or crack due to ultra violet exposure
- prevents uncontrolled cracking by allowing expansion and contraction during atmospheric temperature changes
- Excellent adhesion to most of the common building substrates
- Good resistance to ageing. Retains joints soundness once cured & resistance against mild chemicals, hydrocarbon fuels, sea water
- Non-toxic once cured. Can be used in potable water reservoirs and swimming pools

- Available Pack: 4Kg

Smart Care Polysulphide Sealant not recommended for:

- Joints greater than width 40mm
- Overhead joints
- Movement joints having MAF >25%
- Damp and contaminated surface
- Asphalt pavement
- Over painting (paint compatibility with sealant shall be checked prior to painting)

Joint Designs:

- The width of the joint should be a minimum of 4 times the anticipated movement. Joints with cyclic movement should have a wide to depth ratio of 2:1 for butt joints and 1:1 for floor, static and lap joints. The joint width and depth should be maintained as recommended:

- Joint Width
- 6mm (minimum)
 - Joint Depth - 1:1 upto 10mm and 2:1 for more than 10mm
 - 20mm for trafficked floor joints and areas exposed to hydrostatic pressure checked prior to application.



TECHNICAL INFORMATION

Coverage Gun Grade

Depth (mm)	Width (mm)					
	6	10	15	20	25	30
6	27.5	16.5				
10		10	6.5	5		
15			4.5	3.3	2.6	2.2
20				2.5	2.0	1.6
25					1.6	1.3

Coverage Pour Grade

Depth (mm)	Width (mm)							
	6	10	15	20	25	30	40	50
6	27.5	16.5						
10		10	6.5	5				
15			4.5	3.3	2.6	2.2		
20				2.5	2.0	1.6		
25					1.6	1.3	1	0.8
30						1.1	0.83	0.67

TECHINCAL PROPERTIES

PROPERTIES	RESULTS	TEST METHOD's
Mixing Ratio ; [BASE : CURING PASTE]	92 : 08 parts by weight	
Full cure standard condition,	4 week at 5deg C	
	2 week at 15deg C	
	1 week at 25deg C	
Setting time	72 hrs at 5deg C	
	36 hrs at 15deg C	
	18 hrs at 25deg C	

PROPERTIES	RESULTS	TEST METHOD's
Color of Mix	Grey	
Chemical resistance Solvent & vegoils.	Ph.2.5 to 11.5 hydrocarbon fuels	ASTM D 543
Solids content	98 - 100%	
Density [g/cc]	1.65 to 1.80	ASTM D 475
Flash Point	> 65 deg C	
Shore 'A' Hardness	20-25 for GG & 15-20 for PG	ASTM D 2240
Pot life @ 25 deg C	2 hrs @ 25deg C	ASTM C 603
Tensile & Adhesion Modulus		BS EN 11600
14 days Room Temp Cured	No Adhesion / Cohesion failure	
7 days air cured + 7 days Water Immersion	No Adhesion / Cohesion failure	
7 days air cured + 7 days Heat Aging	No Adhesion / Cohesion failure	
Sagging - Vertical slump	No Sag for Gun Grade	BS EN 11600
Chemical resistance to occasional spillage		ASTM D 543
	Dilute acids	
	Dilute alkalis	
	Petrol	
	Aviation fuels	
	Diesel fuel	
	Kerosene	
	Lubricating oils	
	Skydrol	
	white spirit	
	Chlorinated solvents - No Resistance	
	Aromatic solvent - No Resistance	
	Dilute oxidising acids - No Resistance	
	Nitric Acid – No Resistance	
Biological Resistance	has evaluated in micro biologically active situations & shown to have resistance to aerobic conditions.	
Cracking & chalking after heat ageing70C	No Detoriation	BSEN 11600
Initial cure @ Standard condition	24 hours	
Setting time/Tack free time @ 25 deg C	5 Hours	
Application temperature	5deg C to +50deg C	
Service temperature	-20deg C to +60deg C	
Flammability a fire hazard	Burns but does not readily support combustion	ASTM E 84

It will not readily ignite when expose to flame, hence it does not constitute a fire hazard (ASTM E84)

HOW TO APPLY

JOINT PREPARATION: The joint edges must be clean, dry and free from oil, loose particles, cement laitance and other contaminants which may affect the adhesion.

PRIMIERING: Primer shall be applied to a clean and dry surface prior to the installation of backer rod or bond breaking tape. apply Smart Care Polysulphide Sealant primer on surface. The Primer shall be applied by a brush in a thin coat. For obtaining a clean and neat finish, masking tape shall be applied on both the edges of the joints before applying the primer.

BACK-UP MATERIAL: The backer rod is helping to maintain the depth of joint, material should not have adhesion to sealant, will also provide resistance to sealant tooling pressure and help to attain proper wetting of substrate when the sealant is being tooled. The diameter of the

backing rod shall be at least 20% larger but not greater than 33% of the joint width.

CAUTION: Do not damage or poke holes in the backer rod during or after installation, since this may cause air bubbles in the sealant and effect its performance.

MIXING & APPLICATION: Smart Care Polysulphide Sealant is available in a ready to mix container, with all the component packed in a single tin. The material shall be mixed thoroughly with a slow speed drill (300-400rpm) fitted with a flat bladed paddle for 2-3 min till a uniform colour and consistency is achieved. DO NOT PART MIX load the sealant immediately into the barrel gun by a heavy-duty follower plate. Remove the cap and nozzle from the gun and ensure that the plunger is pushed all the way forward. On vertical joints, sealant extrusion shall

start from the bottom of the joint and continued to the top. For deep vertical joints, the sealant shall be filled in 2 to 3 applications in order to avoid air entrapment and sagging. Once the sealant has been installed a suitable rounded tool soaked in a soapy water solution can be used to achieve a smooth hourglass profile.

STORAGE & SHELF LIFE: Store in a cool, dry place and keep away from all sources of heat and sunlight. The shelf life is up to 12 months from date of manufacturing in unopened conditions.

ADDITIONAL INFORMATION

Standards: Smart Care Polysulphide Sealant complies with the requirement of: BS EN ISO 11600:2003 + A1:2011 (formerly BS 4254), BS 5212: part 1,BS 6920 test on suitability with potable water, ASTM C 920 [Type M, Grade NS, Class 25, USE T]