# TECHNICAL DATA SHEET

#### **2K GUN GRADE UV RESISTANT POLYSULPHIDE JOINT SEALANT**

### Description

POLYSEAL G is two component, polysulphide polymer based, UV resistant, flexible, tear resistant, rubbery, self-leveling, gun grade, non-staining sealant, which adheres to most of building materials like cementitious substrates, aluminum, glass, wood, mild steel etc. POLYSEAL G cures at ambient temperature, has excellent recovery characteristics after extended period of compression / elongation with outstanding resistance to most chemicals, weather conditions, aging and shrinkage.

#### Uses

- Joints in concrete roads, bridges, subways, flyovers & airport runway.
- Joints in water retaining structures like water tank, swimming pool including, decks, aqua ducts, dams, canals & reservoirs.
- Expansion joints in industrial, commercial or residential buildings.
- Nuclear Power station reactor domes.
- Joints between concrete pipe lines.
- Roof light joints.

#### Advantages

- Excellent UV resistant.
- Provides uniform, water tight seal.
- Adhesion compatible to most substrate.
- Highly resilient with excellent recovery characteristics and thermal flexibility.
- Prevents cracking by allowing expansion / contraction during atmospheric changes.
- Flexible, tear resistant, rubbery, self-leveling.
- Chemical / flame / fuel resistant.
- After full cure,
  - Can withstand in fully submerged condition, and
  - The Sealant is suitable for potable water as well..

## **Standard Compliance**

It conforms to BS 5212: 1990 Part I -Type F & Type FB (Flame and Fuel Resistant), IS 12118 Part1 - 1987, BS:4254 and ASTM C 920.

Technical Data	
Colour	Grey
Service Temp, °C	- 40 to + 85
Mixing Ratio	92:8 (by weight)
Pot Life, 25°C, hrs.	2 hrs
Specific Gravity	1.6 ± 0.10
Full cure, in tropical	Up to 8 days
conditions	
Elongation %(ASTM D412)	Approx. 450 ± 50 %
Tensile Strength, kg /	3
cm <sup>2</sup>	
Adhesion bond strength	32
2.5 cm (cohesive failure)	
BS 5212 Part 3	
Shore A hardness	22 ± 3
Movement	
Accommodation Factor, %	
<ul> <li>Butt Joints</li> </ul>	± 25*
<ul> <li>Lap Joints</li> </ul>	± 50m
Min. joint width	10 mm
Min. depth	8 mm
Application temperature	+5°C to +50°C (substrate)
Theoretical Coverage,	550
grm / rm *	For 25 mm x 12.5 mm

## **Application Methodology**

#### **Surface Preparation:**

- Remove all loose gravel, dirt, oil, grease and foreign matter by jet of dry air and clean the surface mechanically or by grinding to make it smooth before application.
- Ensure that the moisture content in the prepared surface does not exceed 5%immediately before application of POLYSEAL G.
- To avoid adhesion of spill-over material beside joint, use masking tape at floor level beside both sides to get sharp edged neat and clean joint.
- Use backup material to avoid third face adhesion and to avoid contact between joint forming board & sealant.
- Use primer on vertical side faces of the joint to ensure strong bonding between substrate and sealant.

## **Material Preparation:**

Mix the entire quantity of Base and Accelerator compounds, which are pre-weighed, thoroughly to a homogenous and uniform grey compound by a slow speed mixture (approx.400 rpm) fitted with a suitable mixing paddle. Ensure that there is no entrapped air.

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## **Application of Material**

- Ensure depth of the joint does not exceed its width.
- Start applying the prepared mixer with Gun after 30 minutes of mixing on tacky primed surface. Use backup rod to adjust depth suitably.
- Do not use POLYSEAL G in grooves exceeding 50 mm in width.

## Finishing & cleaning

Finish the joint in concave shape by using wooden batten soaked in soap water or white sprit from time to time.

- Remove masking tape within 30 minutes before setting of sealants.
- Clean tools and tackles using solvent like, Xylene, etc.

## **Packaging**

Available in 6.5 kg container comprising of 5.98 kg Component A and 0.52 kg Component B, packed in a 13 kg carton.

Available in 4 kg container comprising of 3.68 kg Component A and 0.32 kg Component B, packed in a 16 kg carton.

### Storage & shelf life

12 Months from the date of manufacture when maintain in protected storage in original unopened sealed condition at 5 - 35°C. Store in a cool dry place, under shed, away from heat.

## Safety precautions

User must read Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

#### Note

All Technical Data Sheets of FIRST CHOICE SPECIALITY CHEMICALS are updated on regular basis; it is the user's responsibility, to obtain the most recent issue. Field services where provided, does not constitute supervisory responsibility, for additional information contact our local representative.

#### Fire

POLYSEAL G is non-flammable.

#### **Disclaimer**

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

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