

Dr. Fixit Pidiseal PS 41G (Gun Grade) and 42 P (Pouring Grade)



TWO PART POLYSULPHIDE SEALANT

Description

Dr. Fixit Pidiseal PS is a two-part elastomeric sealant based on a liquid polysulphide polymer, which when mixed with accelerator (curing agent) cures by chemical reaction to form a tough, flexible rubber seal. It is used for construction, expansion & contraction joint application to seal the joint hermetically as it has excellent tensile modulus, elongation, bonding, UV & ozone resistance and weathering durability.

Specification

Meets the requirement of BS 4254 - 1983, BS EN ISO-11600 : 2003 Type F & G, Class 25 LM standard.

Areas of Application

- Sealing of moving and construction joints as well as joints between different construction materials in high rise buildings, roof terraces & ceilings, structural expansion joints running through the ceiling.
- Internal and external wall claddings.
- Sealing of joints in water retaining structures such as Reservoirs, Dams, Canals, and Culverts.
- Vehicular and pedestrian traffic pavements of concrete.

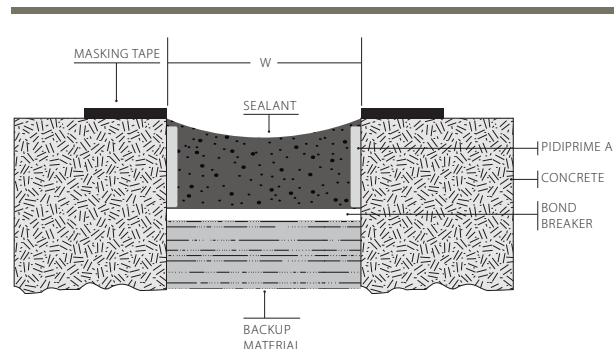
Features & Benefits

- Vertical sagging - PS 41G is used for vertical sealing joints.
- Pourable & self-levelling - PS 42P is used for horizontal joint sealing.
- Curing - Cures at ambient temperature.
- Elasticity - High elasticity and forms tough seal.
- Adhesion/Bonding - Bonds strongly to a wide range of building materials.
- Cyclic Movements - Accommodates continuous and pronounced cyclic movements.
- Shrinkage - Negligible.
- UV & Ozone resistance - Resistant to sunlight (UV rays) and ozone.
- Biodegradation - Good resistance to bio-degradation
- Chemical resistance - Resistant to occasional spillage of dilute acids, alkalis, petrol, aviation fuels, diesel, kerosene, lubricating oils etc.
- Toxicity - It is Non-toxic.

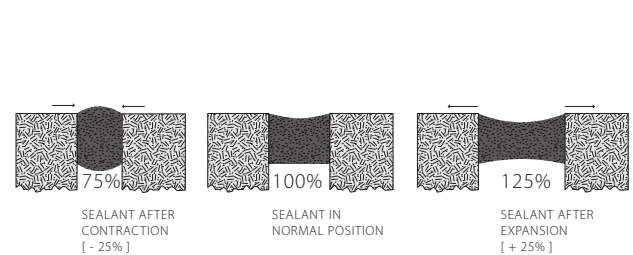
Joint Design

For various reasons, different types of joints are provided with width / depth ratios, depending on the horizontal or vertical movements. The cured sealant should retain its original shape after the deformation due to expansion/contraction. So width depth ratio is very important.

JOINT WIDTH (MM)	WIDTH /DEPTH RATIO
For 6 to 12 mm joint width	Depth shall be 1 : 1 (equal)
For 12 to 25 mm joint width	Depth shall be 2:1 (half)
For 25 to 50 mm joint width	Depth shall be half or less than half



JOINT DESIGN - SEALANT APPLICATION



MOVEMENT ACCOMMODATION FACTOR (MAF)

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Method of Application

1 SURFACE PREPARATION

- Joint edges should be sound and free from grease or oil contaminations. If spalled, it should be rectified properly by using polymer mortar or epoxy mortar.
- Use a closed cell polyethylene foam sheet or rod as a back up material. Back up material is used to adjust width to depth ratio and falling of sealant while application. Ex: Thermocol sheet can be used as a back up material.
- Fix a bond breaker tape over the backup material to prevent third surface adhesion.
- Fix a masking tape on both sides of joint surface to get neat & clean appearance of joints after application of sealant.

2 PRIMING

- Prime only on two sides of the properly prepared joint surface with Dr. Fixit Pidiprime A by brush and allow it to cure for minimum 20 minutes. Apply two coats of primer at an interval of 30 minutes. After priming is over, sealants should be filled after 30 minutes and before 90 minutes. If 90 minutes is exceeded a fresh coat of primer should be applied.

3 MIXING

- The curing agent is to be poured in the tin with the base and mixed thoroughly with a slow speed electric mixer (300 to 450 rpm) for approx. 5-6 minutes until a homogeneous and uniformly grey coloured material is obtained.

4 APPLICATION

- After mixing fill the sealant in the joint using spatula. First, apply the sealant at both the bottom corners till top then fill in the center and level it off. PS 41G is a thixotropic material, applied directly by spatula or can be filled in plastic cartridges using filling device. Sealant filled cartridge to be inserted in to a hand-operated gun.
- By applying nominal hand pressure sealant can be extruded and filled in the joint. PS 42P being a pourable sealant, it is directly poured through the container in to joint, which self levels itself.

5 FINISHING

- Tool PS 41G sealant immediately with tooling knife to ensure 100% contact and adhesion with the surface. This also helps in removing any entrapped air. Finishing can be done by using soap solution (around 5% concentrated) by tooling sealant surface with soap solution wetted finger.

6 CLEANING

- After sealing the joint the tools and equipments should be cleaned immediately with kerosene or any other cleaning solvents/thinners.

7 CURING

- Allow sealant to cure for minimum 7 days before carrying out any testing. Prevent the joints from water after application at least for 24 hrs (best for 7 days).

Precautions & Limitations

- Maximum width for application in a joint is 50 mm.
- Do not expose the sealant to high temperatures.
- Sealant will not adhere to substrates with contamination and traces of bitumen.
- Adhesion of the sealant must only be on two opposite joint faces.
- Do not carry out sealing operations during hot temperature conditions.
- Use of shalitek board as a back up material should be avoided.
- Pouring Grade version must only be applied in horizontal joints.
- Application to be started only after 30 minutes of priming the substrate.

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Technical information

PHYSICAL CHARACTERISTICS

PROPERTIES	SPECIFICATION	RESULTS
Appearance		
Base	Visual	Homogeneous, highly viscous paste
Accelerator		Homogeneous, thin paste
Colour		
Base	Visual	Off White
Accelerator		Dark brown to black
Mixed (92:8 pbwt)		Grey
Density (Mix)		
PS 41G (kg/ ltr)		1.59 ± 0.04
PS 42P (kg/ ltr)		1.53 ± 0.03
Pot life		
at 5°C	BS 4254	24 Hrs
at 30°C		2 Hrs
Setting time		
at 5°C	BS 4254	120 Hrs
at 30°C		24 Hrs
Curing Time		
at 5°C		Approx. 8 weeks
at 30°C		Approx. 10 days

CURED CHARACTERISTICS

Hardness, Shore A	ASTM D 2240	12 - 20
Tensile Strength at break, Kg/cm ²	ASTM D 412	3 - 5
Elongation at break, (%)	ASTM D 412	500 - 600
Adhesion / Bond Strength, Kg/2.5cm	BS 4254	3 - 4
Plastic Deformation, %	BS 4254	15
Staining	BS 4254	No stain
Movement Accommodation Factor		25 % for butt joints and 50 % for lap joints
Service Temperature Range		- 15°C to + 80°C

PACKING

DR.FIXIT PIDISEAL 41 G	DR.FIXIT PIDISEAL 42 P	DR.FIXIT PIDIPRIME A
1 kg (apprx 625 ml)	1 kg (apprx 630 ml)	500 ml
4 kg (apprx 2500 ml)	4 kg (apprx 2520 ml)	
6.5 kg (apprx 4060 ml)	6.5 kg (apprx 4100 ml)	

Coverage

[SEALANT]

$$L = \frac{\text{Vol of sealant in ml}}{W \text{ in mm} \times D \text{ in mm}}$$

Where, L = Length of the joint in linear meter,
W = width of the joint in mm
D = depth of the joint in mm

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PRIMER

6 to 8.5% of the Sealant quantity (Depending upon the porosity of the substrate)

Shelf Life & Storage

Shelf life is 12 months from the date of manufacturing if stored in unopened container. The material should be stored in cool and dry place.

Health & Safety Precautions

- Some people are sensitive to solvents, resins and hardners so it is advisable to use hand gloves and goggles.
- Avoid application on damp and moist substrates and at temperature below 5°C.
- Prescribed Priming is very important.
- Should be stored at cool and dry place.

Note

Field services where provided does not constitute supervisory responsibility. Suggestions made by company either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they and not company are responsible for carrying out procedures appropriate to the specification.

Other Product Categories Available

DR. FIXIT has wide range of Waterproofing & Construction chemicals which includes,

- Waterproofing Products
- Repair Products
- Sealants
- Flooring Products
- Exterior Coating Products
- Tile Fixing Range
- Concrete Admixtures
- Grouts



Pidilite Industries Limited

Construction Chemicals Division
Ramkrishna Mandir Road
Post Box No. 17411
Andheri (E) Mumbai 400059 INDIA
Tel +91-22-2835 7000 • Fax +91-22-2835 7008
website www.doctor-fixit.com • E-mail drfixit@pidilite.com
Toll Free No.: 1800-22-5502

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