



### KEY BENEFITS AND FEATURES:

- Ready to use - Single pack, it reduces the failure due to heterogeneity while imperfect mixing.
- Cures by absorption of moisture from air, (no external curing is required) at ambient temperature with humidity.
- Elastic & forms a permanent tough rubber seal.
- Excellent adhesion to concrete, brick work, painted wood, glass, glazed surfaces, aluminum, stainless steel, steel & plastic like polyester & PVC.
- It does not sag or flow down in the joint.
- No staining of cementitious substrates.
- Excellent weather resistance may slightly yellow on long exposure to UV light.
- Accommodates continuous and pronounced cyclic movement and reduces joint failures
- Meets the requirement of ASTM C-920-S, NS, 25 & BS EN ISO—11600: 2003 Type F & G, Class 25 LM standard.

### USAGE:

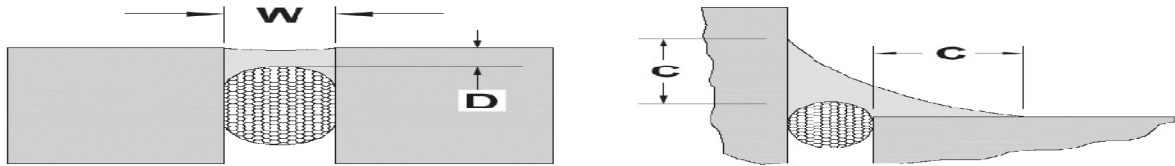
- Sealing of expansion and construction joints as well as joints between different construction materials in high rise buildings, basements, floorings etc.
- Sealing joints in between precast concrete panels.
- Sealing Joints in between tiles, bricks, and marble etc.
- Sealing joints of metal container finishing.
- Repairing of non-moving concrete Cracks and control widths.
- Perimeter pointing & curtain wall ceiling.

### JOINT DESIGN:

For various reasons, different types of joints are provided with width depth ratios in different proportions. Depending on the horizontal or vertical movements, the cured sealant should retain its original shape after the deformation of expansion/contraction. So width depth ratio is very important. **TEC<sup>R</sup> POLYSEAL PU** may be used in any vertical or horizontal joint designed in accordance with accepted architectural/engineering practices. Joint width should be 4 times anticipated movement, but not less than 6mm.

### WIDTH: DEPTH RATIO:

W = Sealant width, D = Sealant depth, C = Contact area.



**EXPANSION JOINTS** - The minimum width and depth of any sealant application should be 6mm x 6mm. The depth (D) of sealant may be equal to the width (W) of joints that are less than 12mm wide. For joints ranging from 13mm to 25mm wide, the sealant depth should be approximately one-half of the joint width.

**WINDOW PERIMETERS** – For fillet beads, or angle beads around windows and doors, the sealant should exhibit a minimum surface contact area (C) of 6mm onto each substrate.

JOINT WIDTH (mm)	WIDTH/DEPTH RATIO (mm)
6 mm to 12 mm	1:1
13 mm to 25 mm	2:1

### DIRECTIONS FOR USAGE:

**Surface Preparations:** Surfaces must be sound, clean, and dry. All release agents, existing waterproofing, dust, loose mortar, laitance, paints or other finishes must be removed. This can be accomplished with a thorough wire brushing, grinding, sandblasting or solvent washing, depending on the contamination. If spalled, it should be rectified properly by using **TEC<sup>R</sup> POLY MORTOR PE**.

**Joint Backing:** Closed cell or reticulated polyethylene backer rod is recommended as joint backing to control sealant depth and to ensure intimate contact of sealant with joint walls when tooling. Where depth of joint will prevent the use of backer rod, an adhesive backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion. Ensure that all backing should be dry at time of sealant application. Fix a masking tape on both sides of joint surface to get neat & clean appearance of joints after application of sealant.



### Priming

Where deemed necessary, use **TEC<sup>R</sup> POLYSEAL PRIMER** and prime only on two sides of the properly prepared joint surface. Apply by brush and allow it cure for minimum 20 minutes. Apply two coats of primer at an interval of 30 minutes. After priming is over, sealant should be filled after minimum 30 minutes and before 90 minutes. If 90 minutes is exceeded a fresh coat of primer should be applied.

**Application:** **TEC<sup>R</sup> POLYSEAL PU** is easy to apply with conventional caulking equipment. Ensure that the backer rod is friction fitted properly and any primers have been applied. Fill the joint completely with a proper width-to-depth ratio and tool to ensure intimate contact of sealant with joint walls. Apply slightly in excess for tooling & finishing purpose. Dry tooling is always preferred, although xylene can be used in limited amounts to slick the spatula if needed.

**Clean Up:** Excess sealant and smears adjacent to the joint interface can be carefully removed with kerosene or xylene or mineral spirits before the sealant cures. Any utensils used for tooling can also be cleaned with kerosene or xylene .

### Cure Time

**TEC<sup>R</sup> POLYSEAL PU** generally cures at a rate of 6 mm depth per day at 32°C. It will skin in 5 hours and be tack free in 30 hours. The cure time will decrease as temperatures and/or humidity increases.

### Limitations

- Do not apply **TEC<sup>R</sup> POLYSEAL PU** over damp or contaminated surfaces and substrates with traces of bitumen.
- Adhesion of the sealant must only be on two opposite faces
- Do not carry out sealing operations during hot weather conditions.
- Use of bitumen board as a back up material should be avoided
- Application to be started only after 30 minutes of priming the substrate

### COVERAGE:

$L \times W \times D$

\_\_\_\_\_ = Volume of material required

1000

(Wastage is not considered)

Volume of material required / 0.6 = Number of cartridges.

Where,

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

### PRIMER

6 to 8.5 % of the Sealant quantity (May vary depending upon the porosity of the substrate)

### TECHNICAL DATA:

CHARACTERISTICS	SPECIFICATION	TYPICAL VALUE
Appearance		Homogeneous, highly viscous paste
Colour		Grey / White
Density (g/cc)		1.23 + 0.04
Skimming time, minutes		15 - 20
Tack Free Time, Hrs	ASTM C – 920	30
Service temperature range, C		- 30 to + 80
Slump at 35° angle		Nil
Hardness, Shore A	ASTM C – 920	20 – 25
Staining	ASTM C-920	No staining
Adhesion & Cohesion under cyclic movement, cm <sup>2</sup>	ASTM C-920	less than 5
Movement Accommodation Factor (%)		+/- 25
Modulus at 100% elongation, N/mm <sup>2</sup>	DIN 53504	0.2
Elongation at break, %	DIN 53504	500 – 600

PACKING: 600 ml/ 800 gms sausage

**SHELF LIFE & STORAGE:** Shelf life is 12 months from the date of manufacturing. The material should be stored in cool and dry place.

### OTHER PRODUCTS

Techny manufactures lot more range of other products for construction and repair applications. They include admixtures for concrete, mortars, block making etc, waterproof and damp proof coating systems, Repair and rehabilitations products, Grouts and Anchors, Protective, Decorative and Corrosion prevention coatings, Epoxy Flooring systems, Industrial flooring systems and Tiling aids. For more details refer Separate Product brochures.

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TECHNICAL DATA SHEET  
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