TECHSEAL PU 1

CHOKSEY™
An ISO 9001-2000 Company

DESCRIPTION

TECHSEAL PU 1 is a novel low modulus expansion joint sealant, especially formulated to contain both PU and silylated – PU technology, thus giving rise to a sealant which includes the best of both technologies. **TECHSEAL PU 1** cures by reaction with atmospheric humidity to produce a joint sealant with a ± **25% joint movement accommodation factor**, which has excellent adhesion on substrates traditionally problematic for PU sealants, e.g. glass, aluminum, steel, polycarbonate, etc. Additionally, the sealant has been modified in order to have extrusion profile identical to hybrid PU or MS technology. The extrusion rate and tooling of the sealant remain the same throughout a very wide range of temperature and humidity conditions. The sealant is easy to apply even in very low temperatures and the storage stability is unlike any polyurethane sealant in the market.

TECHSEAL PU 1 COMPLIES WITH

- ISO-11600,
- Type F - class: 25LM,
- DIN-18540-F,
- ASTM C920,
- U.S. Federal Specification TT-S-00230C,
- Type II Class A.

RECOMMENDED FOR

Sealing joints in:

- In-situ concrete,
- expansion concrete joints,
- precast panels,
- brick and block work,
- water tanks and swimming pools,
- metal frames,
- aluminum windows and panels,
- irrigation channels,
- glass and mirror applications,
- granite & marble.

LIMITATIONS

- Not recommended for direct application on unsound substrates. Application of **Techseal PU 1** requires a strong durable substrate
- Highly porous substrates, such as poorly compacted or cracked concrete, must have their porous bond area surfaces thoroughly sealed to avoid the possibility of air bubbles being blown into the uncured sealant if the substrate temperature rises.

FEATURES & BENEFITS

- Excellent adhesion on almost any type of surface, with or without the use of special primers.
- Excellent extrusion, tooling and storage stability over wide range of climatic conditions.
- Excellent chemical resistance, suitable for sealing joints in swimming pools and chemically treated water.
- Low modulus, joint movement accommodation ± 25 %
- Microorganism and fungus resistant
- Application under water immersion possible
- Excellent heat resistance, suitable for application where exposure to temperatures >60° C take place.
- Resistance to cold: The sealant remains elastic even down to -40° C.

APPLICATION PROCEDURE

Clean joint thoroughly, and ensure that no oil, grease and wax contaminants, silicone remains are present.
For most applications, primer is not required. In the case of application on very porous substrates,
bond area surfaces thoroughly to avoid the possibility of air bubbles being blown into the uncured sealant if the substrate temperature rises. Recommended primer is Primer RDL 942.

Apply backing material such / backing rod. Backing rod application is important as it ensures that the correct width to depth ratio is achieved provides a firm backing against which the sealant can be tooled off.

Slide the sealant into the applicator gun, cut off the very end of the sealant packaging and fit the gun with the nozzle that has been cut to deliver the right bead size.
Extrude the sealant into the joint ensuring that no air is trapped in the joint. Wide joints will require more than one pass of the application gun to make sure that sealant is in full contact with the sides and bottom of the joint.
Tooling is recommended immediately after the application of sealant.
The ratio width to depth should be 2:1 subject to a minimum depth of 10mm

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CONSUMPTION

Linear meters per 600cc sausage:

WIDTH / DEPTH	5mm	10mm	15mm	20mm	25mm
5mm	**24**	**12**			
10mm			**4**	**3**	**2.4**
15mm					**1.6**

PACKAGING

600 cc sausage.

SHELF LIFE

12 months minimum in the original packaging when stored in dry places and at temperatures of 5-25^{o} C. Once opened, use as soon as possible.

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TECHNICAL SPECIFICATIONS

PROPERTY	UNITS	METHOD	SPECIFICATION
Specific weight	g/cc	ASTM D1475 / DIN 53217 / ISO 2811, @ 20° C	1.35-1.4
Tack free time, @ 77° F (25° C) & 55% RH	hours	-	1.30-2
Cure Rate	mm/day	-	3-4
Service temperature	°C	-	-40 to 80
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	±25
Modulus at 100% elongation	(N/mm^2)	ASTM D412 / DIN 52455	0.2
Elongation	%	DIN 52455 / ASTM D412	>900
QUV Accelerated Weathering Test(4hr UV, at 60°C (UVB-Lamps) & 4hr COND at 50°C)	-	ASTM G53	Passed (after 2000hr).
Thermal Resistance (100 days, 80° C)	-	EOTA TR011	Passed
Toxicity	-	-	No restrictions after full cure
Resilience	%	DIN 52458	>80
Hydrolysis (8% KOH, 15 days @ 50° C)	-	-	No elastomeric property change
Hydrolysis (H_2O, 30 days-cycle 60-100° C)	-	-	No elastomeric property change
HCl (PH=2, 10 days @RT)	-	-	No elastomeric property change
Adhesion to concrete	kg/cm^2 (N/mm^2)	ASTM D4541	> 20 (> 2)