



**SILKON**  
ADDITIVES INDIA PVT LTD

# Silkon PU40

Silkon PU40 is a single component cold applied, high performance, polyurethane pavement joints sealant which is used for sealing and maintenance of horizontal and vertical joints in concrete roads, brickwork, block work, precast panels, stone cladding, perimeter sealing around doors and windows, and non trafficked floor joint.

## Product usages and advantages

- Pitch free - environmental friendly
- Cold applied - no heating equipment required
- UV Resistant
- Adhesion to most of the construction material
- Paintable
- High performance - less maintenance

## Standards compliance

Silkon PU40 complies with ISO 11600:2002 Type f 25 LM, ASTM C920-95 TypeS, Grade NS, Class 25

## Description

Silkon PU40 is a one part, low modulus gun grade elastomeric sealant based on polyurethane technology. Silkon PU40 may be applied to joints between 5 and 35mm wide. To minimize stress imposed on the joint sealant, all moving joints should be designed to an optimum width to depth ratio of 2:1 with an overriding minimum depth of 5mm for non-porous surfaces and 10mm for porous surfaces.

For joint widths exceeding 35mm, please contact your local

## Technical support

Silkon offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world..

## Purpose of design

Silkon PU40 has a movement accommodation factor of 25% in butt joints. In designing joint spacing and dimensions, consideration should be given to the likely uneven distribution of movement. To ensure the sealant operates within its stated movement capacity of 30%, the width of sealing slots should be designed in accordance with the recommendations of IRC-57-2006. In trafficked areas the expansion joint width should not generally exceed 30 mm - for wider joints consult local Silkon Office.

Joint depth: In trafficked areas the sealing slots should be constructed so that at no time during the anticipated operating cycle of the joint will the sealant protrude above the surface of the concrete pavement. It is necessary to recess the level of the sealant 5 to 8 mm below the pavement surface, dependent on the time of year and temperature prevailing at the time of sealing.

The width to depth ratio of the Silkon PU40 seal should be 1:1 to 1½:1 subject to a minimum 10 mm depth of sealant (example, contraction joint: 15 mm wide x 13 mm depth; expansion joint: 25 mm wide x 20 mm depth).

## Properties

Property	Result
Form	Smooth and slumping paste
Color (Mixed Material)	White Gray
Storage Life	12 months in original containers in dry conditions within the range 5 <sup>o</sup> C -27 <sup>o</sup> C
Solid Content	96±2
Movement Accommodation factor (IRC-57-2006)	Bull Joints 25%
Curing	Chemical Cure
Application Temperature	5 <sup>o</sup> C to 50 <sup>o</sup> C
Pot Life	Min.30 Minutes at 25 <sup>o</sup> C
Setting Time	After 12 to 16 hours @ 35 <sup>o</sup> C Silkon PU40 will be tack free and can accept traffic.
Curing Time	24 Hrs 3mm.
Water immersion	Silkon PU40 must be fully cured before permanent immersion in water.



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## Chemical resistance to occasional spillage

Aviation fuels	: resistant
Hydraulic fluids	: resistant
Skydrol	: resistant
Kerosene	: resistant
Petrol	: resistant
Diesel fuels	: resistant
Synthetic oils	: resistant
Mineral oils	: resistant
White spirit	: resistant
Mid alkalis	: resistant
Dilute acids	: resistant

All the above properties have been determined by laboratory controlled tests and are in excess of those expected in practice. Nevertheless, success in use will be determined by the implementation of good housekeeping practices.

### Maintenance

No special requirements. Any damage identified during normal inspections should be repaired or replaced as appropriate.

## Application Methodology

### Joint preparation

The joint surfaces must be thoroughly dry, clean and frost free. Remove all dust and laitance by rigorous wire brushing, grinding or grit-blasting. Remove all rust, scale and protective lacquers from metal surfaces. Remove any oil or grease with any suitable solvent. Any expansion joint filler must be checked to ensure it is tightly packed and no gaps or voids exist at the base of the sealing slot, before positioning a bond breaker. For construction or contraction joints breaker or back up tape should be used. Where hydrostatic pressure exists, only bond breaking tapes must be used not foamed back-up strips. Where a particularly neat finish is required, mask the face edges of the joint before priming and remove immediately after tooling is completed

## Application

When mixed, the sealant may be loaded into a Sealant Gun after removing the nozzle and cap and pulling back the plunger rod. The nozzle cap is then replaced ready for application. Where a particularly neat finish is required, mask the face edges of the joint before sealing and remove immediately after tooling is completed.

## Packaging

Silkon PU40 – 600 MI Sachets

## Volume Calculations

Joint size	Litres/ run meter	Meter run / in mm 3 L
10 x 10	0.100	30.00
13 x 13	0.169	17.70
15 x 15	0.225	13.30
20 x 15	0.300	10.00
20 x 20	0.400	7.50
25 x 20	0.500	6.00
25 x 25	0.625	4.80
30 x 25	0.750	4.00

## Storage

Silkon PU40: 12 months in original containers stored in cool, dry conditions, i.e. not exceeding 25°C. Storage above this temperature may reduce shelf life.



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## Health and Safety

Silkon PU40, may cause sensitization by inhalation and skin contact. Wear suitable protective clothing, gloves and eye/face protection. Barrier creams provide additional skin protection. Should accidental skin contact occur, remove immediately with a resin removing cream, followed by soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advise. Use only in well ventilated areas. For additional information see relevant Product Safety Data Sheet.