



Silkon PU200

Silkon PU200 is a cold applied, high performance, pitch free, polyurethane pavement joints sealant which is used for sealing and maintenance of horizontal joints in concrete roads, concrete runways and hard standings. The excellent fuel resistance of Silkon PU200 makes it particularly suitable for sealing areas where fuel and oil spillage might occur such as: Aircraft fuelling areas, oil terminals, garage forecourts, parking and cargo areas, wharehouse.

Product usages and advantages

- Pitch free - environmental friendly
- Cold applied - no heating equipment required
- Fuel, oil and hydraulic fluid resistant
- Self-levelling
- Tough rubbery seal
- High performance - less maintenance

Standards compliance

Silkon PU200 complies with U.S.Federal Specification SS-S 200E:1984 and British Standard 5212:1990 - types N, F and FB.

Description

Silkon PU200 cold applied, pitch-free, two part polyurethane sealant is designed for joints in concrete paved areas. The capability of accommodating cyclic movements is retained by Silkon PU200 throughout extremes of temperature conditions. Silkon PU200 is resistant to fuel, oil and hydraulic fluid spillage, will not harden in cold weather nor become excessively soft or pick up in hot conditions. Silkon PU200 has high durability and long service life which significantly reduces maintenance costs

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 PU200 has a movement accommodation factor of 30% 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 PU200 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	Two-part Compound Base : paste Curing agent : paste
Color (Mixed Material)	Grey
Storage Life	12 months in original containers in dry conditions within the range 5°C -27°C
Solid Content	96±2
Movement Accommodation factor (IRC-57-2006)	Bull Joints 30%
Curing	Chemical Cure
Application Temperature	5°C to 50°C
Pot Life	Min.30 Minutes at 25°C
Setting Time	After 12 to 16 hours @ 35°C Silkon PU200 will be tack free and can accept traffic.
Curing Time	5-7 Days at 25°C
Water immersion	Silkon PU200 must be fully cured before permanent immersion in water.
Shore 'A' Hardness @ 25°C	10±2



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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

Mixing

Drain totally the contents of the tin containing the curing agent into the large base component tin. Using a hand held, slow speed drill (400 to 500 rpm) fitted with a Silkon paddle blade stirrer, mix for approximately one minute, stop the mixer and scrape around the top of the tin to remove any remaining curing agent. Continue mixing for a further 3 minutes until the material is thoroughly mixed

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. In wider joints of 25 mm and above, the mixed sealant may be poured directly from the tin by bending the side to form a pouring lip. Apply mixed sealant into the sealing slot so that the finished level of the seal is recessed below the trafficked surface as specified.

BS 5212:1990 Pt 2 sets out a code of practice for the application and use of joint sealants for concrete pavements.

Packaging

Silkon PU200 2.5 L pack

Volume Calculations

Joint size	Litres/ run meter	Meter run / in mm 3 L pack
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 PU200: 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 PU200, 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 advice. Use only in well ventilated areas. For additional information see relevant Product Safety Data Sheet.