Polyseal 51

Description

Polyseal 51 is a low modulas, tar free, 2K polyurethane elastomeric sealant formulated to accommodate continual cyclic movement throughout high and low temperature conditions.

Polyseal 51 is a two component sealant for internal and external joint sealing.

Polyseal 51 is resistant to fuel, oil, hydraulic fluid and Skydroll and remains stable at constant exposure to high temperature and high humidity climates.

Polyseal 51 is thermally stable and withstands road trafficking and diverse climatic conditions. The resiliency of Polyseal 51 makes it suitable for thermal expansion and contraction of the concrete substrate.

Typical uses:

For sealing movement joints in bridge decks, airport runways, docks, sewage water tanks and reservoirs.

Advantages:

- High performance in extreme conditions.
- Low modulas and high movement accommodation of +/-25%
- Fuel, oil, hydraulic fluid and skydroll resistant.
- Excellent weather resistance.
- Excellent resistant to bio-degradation.
- Stable in high temperature and high humidity conditions.
- Available in gun grade and pouring grade versions.
- Excellent application characteristics.

International standards compliance:

- British standards : 5512 : 1990
- US Federal specification : SS-S-200E:1984

Chemical resistance:

- Aviation fuel.
- Petrol
- Diesel
- Kerosene
- Hydraulic fluids
- Skydroll.
- Dilute acids
- Dilute alkalies

Application:

Joint preparation:

- The joint sealing slots should be accurately formed.
- The concrete must be sound, dry and oil free.
- The sealing slot surfaces must be well prepared to remove dust and laitance by grit blasting or grinding.
- The slot should be blown out with dry, oil free compressed air just prior to priming. Care should be taken to ensure that the slot is formed to the required depth and any expansion joint filler tightly packed.
- A tight fitting cord or bond breaker should be inserted at the base of the slot to ensure that the sealant bonds only to the joint sides

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Priming:

Moisture curing urethane resin FB 303 should be applied to the joint sides using a clean, dry brush, working the primer well into the substrate.

Sealant application:

Polyseal 51 must then be applied just after the primer becomes tack free but before it has fully cured. The Sealant should be applied between 1 hour and 4 hours after priming. If the primer is left to dry longer than 4 hours, the surfaces must be re-primed prior to applying the Sealant. If the primed joint is left for more than 24 hours before the sealant can be applied, the sealing slot should be re-grit blasted and the preparation and priming procedure are repeated.

Mixing:

Drain the total contents of resin and hardener into the mixing pot. Mix thoroughly for 5 minutes using a slow speed stirrer. Mixing ratio of resin and hardener is 10 : 1 by weight.

Application:

By pouring technique: Care should be taken to ensure that the sealant is recessed in the joint such that at no time during the movement cycle will the sealant extrude above the level of the concrete pavement.

Application temperature:

5° to 50°C

Equipment cleaning:

Clean equipments, brushes with PUT 502

Specifications of Polyseal 51:

Type	:	Cold applied, two component, polyurethane sealant.
Ratio of mixing	:	10 : 1 by weight
Specification conforming to	:	BS 5512 : 1990 US Federal specification : SS-S-200E
Non Volatile content	:	100%
Movement accommodation factor	:	25%
Mixed colour	:	Grey, tan and black.
Density @ 30°C: Resin Hardner Mix	 : : :	 1.25 - 1.28 g / cc. 1.17 - 1.22 g / cc. 1.22 - 1.28 g / cc.
Viscosity @ 30°C: Resin Hardner	 : :	 63-69 ps 18-24 sec
Pot life at 25°C	:	5-8 hours
Curing time : Tack free time Full cure	: : :	 8 hours 48 hours
Light traffic	:	24 hours
Minimum depth	:	10 mm.
Shore A Hardness	:	20-30
% elongation	:	700 - 800%