

TECHSEAL RDL 941 EH HPP

HIGH PERFORMANCE POLYSULPHIDE SEALANT - HIGHLY DURABLE

DESCRIPTION

TECHSEAL 941 EH-HPP are two component sealant based on THIOKOL Polysulphide liquid elastomer. It consists of a 'base' compound and 'accelerator' (curing agent). When two components are mixed together prior to application, a chemical reaction is initiated which cures instantly to a firm, flexible rubber like seal with excellent adhesion to concrete, masonry, wood, glass, acrylic and PVC plastics. It is capable of withstanding repeated extension, compression & cyclic movements without the loss of adhesion and resists deterioration by weathering, sunlight, ozone, water, salt, oils and fuels. It is far superior to all the conventional joint sealant materials like bitumen, mastics, metallic channels and expansion sheets. Techseal 941 EH-HPP is a pouring grade material used for sealing of horizontal joints.

FEATURES & ADVANTAGES

- Bonds strongly to most of the building material with the use of recommended primer.
- Durable, remains unaffected by UV rays, ozone and weathering conditions.
- Resists water, salt water, 10% dil. acids except nitric acids, alkalis, most of the common chemicals, vegetable, lubricants, oils and fuels.
- It performs well in a temperature range from 40°C to 80°C intermittent.
- Slip resistant (sag) can be applied in horizontal joints.
- Movement capability Provides satisfactory hermetic sealing of the joint subjected to expansion, contraction, vibration and cyclic movement within the following limits.
- Movement joints upto + 30% of the width.
- Resilient recovers the original width after expansion & contraction without the losing the surface bond.
- Excellent reparability property.
- It can be over coated by waterproofing compounds.
- Non toxic.
- Sealants will not cause staining to concrete masonry or stones.
- Fuel resistance & good fire resistance.
- Suitable for semiautomatic and automatic meter mixing machine.

TYPICAL APPLICATION

- Cures at ambient temperatures to a tough, elastic and flexible rubber like material.
- Sealing of expansion, contraction & construction joints in structure such as,
- Concrete pavement, highways, runways, airfields, and petrol pumps.
- Areas, which are affected by fuel, oil, fire etc.
- Extreme temperature regions.
- Sealing of water retaining structure joints such as Water tank, reservoir, aqua ducts, canals, culverts and water treatment plant.

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TYPICAL CHARACTERISTICS

- Nature : Two Components
- Mixing Ratio by wt. : 90:10
- Consistency after mixing : Flowable paste
- Application time (pot life) at 30^o C : 1 - 2 hours
- Initial setting time at 30^o C : 24 hours
- Complete curing time, At 5^o C : 8 weeks
 - At 15^oC : 4 weeks
 - At 25^oC : 2 weeks
 - At 30^oC : 1 week
- Color-Base compound : White
- Accelerator (curing compound) : Dark brown to black
- Mix compound : Dark Grey
- Sump (sag) resistance : Sagging

MECHANICAL PROPERTIES

- Tensile strength 2 : 6-7 Kg/cm
- Peel strength (concrete) 2 : 3 - 5 kg/cm
- Hardness SHORE A : 18-22
- % Elongation : 600% minimum
- Recovery : More than 85%
- Abrasion resistance : Excellent
- Chemical and solvent resistance : Excellent
- Flame resistance : Excellent

DIRECTION FOR USE

SURFACE PREPARATION

Surface preparation is the most important step before application of sealant to get best results and to avoid failure. The joint surface must be dry, free from dust, coating, bituminous mastics, concrete curing agents, mould release agents, oils, greases and loose particles. Clean the joint surface by wire brush and sanding with emery paper. Remove dust by compressed air or paint brush. Wipe out oil and grease by solvent soaked cloth (such as xylene, toluene or acetone.)

TOOLING & FURNISHING

It is desirable that a smooth surface is obtained. Tool the sealant by pressing the puffy knife or flat tool against the sealant surface, moving along the length of the joint. Tooling breaks air bubbles and exposes any air pockets present. Tooling compresses the sealant, thus promoting adhesion to the joint sides. After tooling the masking tape should be removed immediately. Soap solution can be used to smoothen the sealant surface.

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BACK UP MATERIAL

Insert compressible polyethylene, polyurethane, neoprene, polyethylene butyl rod as back-up material to control depth of sealant in the joint and to provide support for tooling of the sealant.

PRIMING

Select a primer suitable to the substrate and apply two coats by brush on the sides of the joints surface at an interval of 30 minutes.

- Primer RDL 942: For porous substrate such as concrete, wood etc.
- Primer RDL 947: For non-porous substrate such as metals, glass etc.

BOND BREAKER

Fix bond breaker tape such as self adhesive polyethylene tape on back-up material to avoid adhesion of sealant to the third surface.

MASKING TAPE

Apply masking tape such as self adhesive polyethylene, cellophane or cloth tape on both the edges of the joint. It is used to improve the neatness of the finished seal by protecting the face edges of the joint. It may be removed immediately after tooling of the sealant.

MIXING

The base and accelerator compounds supplied are packed in pre-weighed quantity as per the mixing ratio. After the application of primer, mix the material of individual container. Transfer entire quantity of accelerator to the base compound tin and mix it thoroughly to a uniform, homogenous black color. Mixing can be done manually with spatula, palette knife or special flat stirrer attached to a low speed electric mixer less than 500 r.p.m.

APPLICATION

POURING GRADE

After mixing the two components, the mix is suitable for pouring directly from the container into the joints. This grade levels itself to form a smooth and clean surface.

COVERAGE

Sealant: To estimate the quantity of TECHSEAL 941EH-HPP required to seal the joint can be very easily estimated by using the following formula:-

$$L = 625 / (W \times D)$$

Where, L = Length of the joint in linear running meter

W = Width of the joint in mm.

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D = Depth of the joint in mm.

Primer: 1 lit. of primer is required per 15kgs of sealant.

CLEANING OF TOOLS & EQUIPMENTS

Tools and equipment can be easily cleaned with solvent such as xylene, toluene, methyl, ethyl, ketone and acetone.

STORAGE & SHELF LIFE

Store the material at cool and dry place (at 25⁰C temp. & 50% RH). Shelf life is 9 months in unopened containers.

PACKING

Techseal 941EH-HPP : Pack size is available in 4 kg. & 6.5 Kgs Industrial Packs.
Primer : 250 ml, 500ml, 1 liter

SPECIFICATION COMPLIES

- BS 5212 & BS 4254 for concrete surface
- EN 141875: 2003
- ASTM C 920

PRECAUTIONS

- Some people are sensitive to resins, hardeners, solvent and its vapours so it is advisable to use hand gloves and goggles.
- Avoid application below 10⁰C temperatures.
- Avoid application and damp or moist substrate.
- Storage in a cool & dry place.
- Ensure that two coats of primer are applied on the jointing surfaces V.

WARRANTY

10 Years Product Performance Warranty.

*Conditions Apply

1. Movement of Structures / Concrete Slabs resulting in undue stresses beyond manufacturer's specification for elongation / compression on the products caused by settlement, error in design calculations, construction issues or any other reason results to structural failure.
2. Disintegration of the substrates.
3. Willful or accidental mechanical damage caused by acts of war, vandalism, tools or individuals etc.
4. Changes in the appearance of the Sealant caused by atmospheric contaminants or other factors like tyers / rubber marks etc.
5. Natural causes such as earthquake, lightning, fire, adverse weather conditions including but not limited to very high temperatures accompanied by high humidity over a considerable period of time etc.
6. The products warranted being free of defective workmanship and / or materials.
7. Applications should be done as per given in technical data sheet.
8. The joints should be filled as per instructed in the technical data sheet.