

TECHSEAL RDL 183

EPOXY JOINT SEALANT

DESCRIPTION

TECHSEAL-RDL-183 a two-part pouring grade sealant is formulated from a blend of epoxy polymers. The mixed sealant is self leveling and can be poured directly into horizontal joints to form a tough resilient seal, possessing a limited degree of flexibility.

APPLICATIONS

- Stable construction joints in manufacturing and warehouse floors
- Filling of control/saw cut joints
- Filling and sealing wire slots in concrete and asphalt pavement
- Situations where spillage of diesel or chemicals degrade traditional sealants

ADVANTAGES

- Load bearing under heavy wheel loads. Reinforces joint edges to prevent spalling in heavy-duty areas
- Good resistance to chemicals and hydrocarbon fuels
- Excellent adhesion without primer to dry clean concrete
- Pouring grade ensures ease of placing
- Self-levels to produce uniform and neat joints

DESIGN CRITERIA

Joints should be designed so that the total movement due to concrete shrinkage and thermal change does not exceed the $\pm 10\%$ movement accommodation factor related to the joint width. We would recommend that joints to be sealed with Techseal-RDL-183 are left till the final stages of construction when internal temperatures have stabilized and initial concrete shrinkage has taken place. The bulk of concrete shrinkage will take place within the first 28 days therefore sealant works should be delayed for this minimum period.

PROPERTIES

Curing	: @ 30°C - 40°C
•Tack Free Time	: 2 Hours
•Hard Dry Time	: 16 Hours
•Full Cure Time	: 7 Days
Application temperature	: +10°C to 45°C
Service temperature	: -10°C to 70°C
Specific gravity	: 1.40
Shore hardness	: A: 80-90 - B: 40-50
Pot Life	: 30 min - 90 min
Mixing Ratio	: 80 : 20 by wt.
Tensile strength	: 20 kg/cm ²

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Compressive Strength : 60 Mpa in 7 days
Elongation at break : 20-25%

CHEMICAL RESISTANCE

Good resistance to most common mineral acids, alkalis, petroleum based fuels and steam.

JOINT DIMENSION

Standard width to depth ratio will be between 1:1 and 2:1 Min. depth required Techseal-RDL-183 is 10 mm.

STANDARDS

Complies with the requirements of ACI 302, Section 4.10 "Recommendations for epoxy joint filers used in saw cut/control joints".

INSTRUCTIONS FOR USE

JOINT PREPARATION

Joint surfaces must be clean, dry and free from laitance dust or any other foreign matter. All dry residual dust from joint cutting operations should be completely removed using a rotary power brush, dry abrasive blasting or other approved means. Blow all joints clean using dry oil free compressed air.

When required, foam backing cord should be of a firm closed cell grade. Debonding tape should be used in the base of all joints except where foam-backing cord is used. Where a neat finish is required, masking tape should be applied down each side of the joint prior to the start of the sealant works, it should be removed immediately after the sealant works are complete.

PRIMING

Priming is not normally required when using Techseal-RDL-183 in dry, sound, well prepared concrete joints, or joints which have been reformed using a Choksey resin based repair mortar. Where optimum adhesion is required or where joints may be totally immersed in water, RDL 947 should be used.

MIXING

The components of Techseal-RDL-183 are supplied in the correct mixing ratio. Add the entire contents of the color pack and hardener component into the base container and mix together thoroughly for three minutes using a slow speed drill (300 to 500 rpm) fitted with a mixing paddle. Ensure any settlement is thoroughly dispersed. The sides of the container should then be scraped down to ensure that any unmixed components do not remain. Mixing should then continue for a further 2 minutes.

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APPLICATION

The mixed Techseal-RDL-183 can be poured directly from the mixing container by compressing the sides to form a pouring lip. Pour into the prepared joint to the required level, should the joint width prohibit direct pouring from the container, the mixed material can be poured into a Sealant gun and applied to the joint. It may be necessary after a few minutes to top up the level of the sealant after it has flowed into all joint irregularities. Finally, strip of any masking tape that may have been used.

CLEANING

Clean tools immediately after use with Toluene. Clean hands with a proprietary hand cleaner.

LIMITATIONS

Techseal-RDL-183 is not intended for use in vertical joints for use in vertical joints use gun grade quality.

PACKING

Techseal-RDL-183: 4.0 kg pack

GUIDE TO SEALANT QUANTITIES

Number of running met. Work done in 1 kg material = $714/W \times D$

STORAGE

9 months in original containers stored in cool dry conditions i.e. not exceeding 25°C. Storage above this temperature may reduce storage life.

PRECAUTIONS HEALTH AND SAFETY

- Some people are sensitive to epoxy resins so gloves and a barrier cream are recommended to be worn when handling these products.
- If contact with the resin occurs it must be moved before it hardens followed by washing with soap and water.
- Do not use solvent. In the event of contact with the eyes irrigate liberally with clean cold water and seek medical advice.