

Arina-seal LIR 241

Low viscosity injection resin based on special selected epoxies

Introduction:

Arina-seal LIR 241 is two-component, high strength, solvent free, low viscosity injection resin based on selected epoxies. It can be used for crack injection in concrete or other masonry materials. The product complies with ASTM C881.

Where to use:

Arina-seal LIR 241 is based on very low viscosity resins. It is ideal for filling and sealing cavities and static cracks (from widths greater than 100 microns) in structural elements such as columns, beams, foundations, wall and floor slabs. It forms an effective permanent seal against ingress of corrosive fluids and gases. Also structurally bonds the concrete sections and is capable of providing integrity to structural elements.

Technical information:

Appearance	Light yellow liquid (mixed) Comp. "A": Transparent Comp. "B": Amber
Mixing ratio	A : B = 4: 1 by weight or volume
Density (at 25 °C)	1.050 kg/l (mixed)
Bonding strength	2.5 MPa (7 days)
Compressive strength	55 MPa (7 days)
Flexural strength	35 MPa (7 days)
Service temperature	-35 to +65 °C
Full cured	After 14 days (at 25 °C)
Working Time / Pot life	40 min. (25 °C)

Advantages:

- Excellent adhesion to concrete and most construction materials.
- Tolerant of moisture before, during, and after curing.
- Excellent early and final mechanical strengths.
- Excellent chemical resistance.
- Impact and shock resistance (hard but not brittle).
- Very low viscosity.
- Good wetting properties, can penetrate in to very narrow cracks.
- Easy to use.
- Low odor.
- Shrinkage free while hardening.
- Will not corrode reinforcement.
- Suitable for use in both, dry and damp conditions.

Surface preparation:

Preparation of cracks for injection depends on injection method. In each method of injection, all cracks to be treated should be cleaned by vacuum cleaner or flushed out with clean, dry, and oil free compressed air. This should be done after drilling of injection holes or fixing nipples.

Mixing:

Stir each component separately. Add component "B" to Component "A" and mix them thoroughly using a low speed drill (max. 400 rpm) fitted to the suitable paddle at least for 2 to 3 minutes or until a uniform color is obtained. For partial mixing, pour 1 part of component "B" and 4 parts of component



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"A" by weight into a clean pail and mix them thoroughly. Mix only required quantity which can be used within the pot life.

Material consumption:

As a sealer: 250 to 350 g/m², depending on surface roughness.

As an injection resin: depending on cracks condition.

Application method:

Thoroughly mixed *Arina-seal LIR 241* should be injected using an injection gun or an air less pump.

Injection should be started from the lowest injection point (nipple or packer). Inject material until it seeps out from upper injection point. Block the first injection point and continue the injection process upward. Continuing the process until the whole length of the crack has been injected.

It is strongly recommended to allow injection specialist and proper equipment be implemented for any injection job.

Limitations:

Width of cracks to be injected: 0.1 to 9 mm

Minimum permissible substrate temperature: + 5 °C.

Maximum permissible substrate temperature: + 35 °C.

Do not thin *Arina-seal LIR 241* by solvent. Solvent will prevent proper curing.

Age of concrete must be 21~28 days, depending upon curing and drying conditions.

Cleaning:

Application tools and equipment should be cleaned after completion of each job or at break time.

Uncured material can be washed with approved solvent. Cured material can only be removed mechanically.

Storage / Shelf life:

Store out of direct sunlight, and protect from extreme heat and rain fall. The shelf life for originally unopened package is 12 months from date of production.

Packaging:

Arina-seal LIR 241 is available in 1.0 or 3.0 liters Total units.

Safety precautions:

Product may cause skin irritation. Use personal safety devices such as gloves and goggles. If contacted with eyes or mucous membrane, wash immediately with plenty of warm water and seek medical attention.