



HIND ERS 31 (LV)

PRODUCT DATA SHEET

LOW VISCOUS HIGH STRENGTH INJECTABLE EPOXY GROUT

DESCRIPTION

Hind ERS 31 (LV) is a two component solvent free low viscous fast curing epoxy resin system comprising of Component A and Component B. It is designed especially for pressure injection into concrete for carrying structural repairs. **Hind ERS 31 (LV)** is supplied in pre-measured quantities. The system conforms to **ASTM : C-881-1987 Type 1& 4, Grade 1, Class B & C.**

USES

Hind ERS 31 (LV) is ready to use for pressure injection into concrete for structural repairs. Being a low viscosity, non-shrink, free flowing, injectable and pourable system which find various usage in sealing of crack, expansion joint, floor joint, pavement joint, cold joints, gap behind the steel plate for epoxy plate bonding etc.

ADVANTAGES

Hind ERS 31 (LV) is very useful in concrete such as

- High elastic modulus ensures effective transfer of stresses at bond interface.
- Due to low viscosity it can be injected and effective penetration of even 0.1mm cracks and small cavities.
- It has high compressive strength, tensile and flexural strength.
- Excellent bonding and adhesion.
- Long pot life enables single line pumping.
- No shrinkage during curing.
- Resistance to creep even at high service temperatures.
- High HDT helps sustaining repair effectiveness even at high service temperature.
- Like all epoxy resin system it has high chemical resistance.
- Cured material is not brittle and remains slightly flexible.
- Reduce thermal expansion coefficient thus improves thermal conductivity.

APPLICATION

Surface Preparation: Before application surface preparation is important, surface should be cleaned, dry, free from loose particles, oil, grease or other foreign materials, injection nipples are fixed in a square grid maximum 500 to 800 mm c/c depending on the cracks and nature of concrete, if required for effective treatment, the grid may be reduced. Before the injection starts all cracks and crevices are to be sealed with **Hind ERS 31 (LV)** mortar and surface sealing is to be done for other porous areas.

Mixing: Mix 1 part by wt of component B with 3 parts by wt of component A, i.e. mixing ratio = Component A: Component B = 3:1 (by wt). Mix at least 5 minutes to uniform color without any streak using a drill and paddle mixed (speed 200 RPM) so as to avoid any entrapped air.

Injection: The grout mixture should be pumped by a positive displacement plunger type pump. Inject at slow and even pressure through the injecting nipples till refusal or when the grout oozes out from nipple immediately adjacent to or above the one being injected.

Other Applications: For epoxy plate bonding, fixing nipples for injection grouting into pre-drilled holes on the plate and concrete all gaps are to be sealed with **Hind Sealant E**.

Cleaning: Clean all tools & equipment immediately after use with, Xylene, Toluene or suitable solvent.

PROPERTIES

Aspect	Pale Yellow Liquid
Viscosity at 25 ⁰ C	300 ± 50 cps
Mixed ratio	Comp A: Comp B = 75:25 (by wt)
Density	1.05kg/litre
Pot life	50 Minutes at 25 ⁰ C 30 Minutes at 40 ⁰ C
Tack free Time	7 hours at 25 ⁰ C
Compressive Strength (ASTM C 579) at 25 ⁰ C	80- 90 N/mm ² after 1day 100-105 N/mm ² after 7days
Tensile Strength (ASTM D638)	18MPa in 7 days.
Flexural Strength (BS 6319, Part 3)	45MPa in 24 hours. 55MPa in 7 days
Slant Shear Bond Strength (ASTM C882)	18MPa in 7 days.
Shrinkage (ASTM C 881)	Practically no shrinkage. (Passes)
Full Curing Time	7 days at 25 ⁰ C
Chemical resistance	Chemically resistant to wide range of chemicals and oils.
Water absorption	< 1 %

PACKING

4 Kg Kit or as required.

SHELF LIFE

Best before 12 months from the date of manufacture. Should be stored in a cool and dry place away from direct sunlight at temperature ranging between 2⁰ C (Min.) and 35⁰ C (Max.).

HANDLING PRECAUTION

Hind ERS 31 (LV) is non-toxic but ingestion is to be avoided. Any splashes to the skin must be washed with water. If contact with eyes occurs, wash well immediately with water and seek medical advice.

Note:

- **Hindcon Chemicals** maintains a team of technically trained professionals to provide full support to your problems in construction, and recommend the correct product to suite your specific requirements. Our authorized applicators can attend your site for application of the products.
- The content of the Technical datasheet are for general information and guideline. The result shown here are generated from our laboratory or from our site experiences.
- Quality of our products are maintained as per ISO9001:2008 recommendations and continuous researches. The behavior can change as per the prevailing conditions at the time of applications.
- Since **HINDCON CHEMICALS LIMITED** has no control over the use to which the users may put the material, it does not claim or warrant that in the user's particular circumstances, the result that the user will obtain from the product will be the same as those described in this communication or that the user will find the information or recommendations complete, accurate or useful. The client must test and ascertain the safety and fitness for the product for use.
- The right to change the properties of the products is reserved with us. The proprietary rights of third parties must be observed. All orders are accepted subject to the terms of sale and delivery. Users must always refer to the most recent issue of the latest Data Sheet for the product concerned, copies of which will be supplied on request.

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