ESSR BOND®

THE STRESS FREE BONDING

Proudly made in India

TECHNICAL DATA SHEET

ESSRBOND GS500 (1K PU Injection Grout)

CGSEAL/TDS/100 Date : 1-08-2020

DESCRIPTION

ESSRBOND GS500 is a hydrophobic grout based on polyurethane. Upon contact with water, ESSRBOND GS500 reacts to closed cell rubber-like foam while expanding its volume up to 27 times. The cured material is of a constant volume. Since water is not a component of the foam structure, the cured material is essentially not affected by water or dryness. The reacted material does not shrink or swell. Depending on the pressure of injection, ESSRBOND GS500 reacts to a very dense material or foam.

FEATURES

- Negative side application possible
- Deep penetration into very small cracks
- Foam increases in volume to fill cavities and voids
- Excellent bond to surfaces
- Good adhesive strength, tolerant of movement
- Inert after curing, constant volume, no shrinkage
- Dose not create new cracks

USES

Areas of application include:

- Defective concrete (cracked or honeycombed)
- Concrete joints, Limestone, Brick construction
- Pipe intrusions, Waste water tanks
- Tunnels, Dams, Subway(Metro), Sewers, Manholes, Utility boxes, etc.
- Soil stabilization

TECHNICAL PROPERTIES

PROPERTIES	RESULT
Form	Liquid Type
Color	Dark Brown
Solubility in Water	Hydrophobic
Density	1.12 g/ml
Viscosity	100-200
Max. Expansion (25°C)	2,700 % [Ratio 10:1 Resin : Water]
Induction Time (25°C)	15 sec [Ratio 2:1 Resin : Water]
Gel Time (25°C)	110 sec [Ratio 2:1 Resin : Water]
Tensile Shear Strength (23°C)	4 N/mm²
Appearance	Light Yellow Polyurethane Foam
Corrosiveness	Non-Corrosive
Chemical Resistance	Resistant to most organic Solvent, Mild Acids, Alkali

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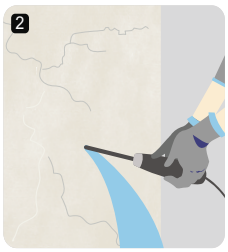
APPLICATION PROCESS

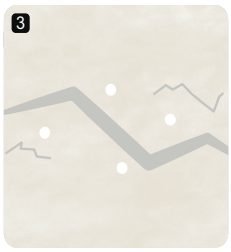
CHECK CRACK AREA

Check crack area and Clean up the surface with wire brush or grinder.



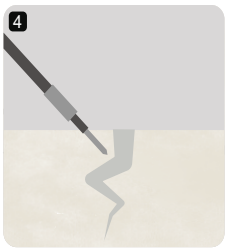
DRILL HOLES

Drill holes near cracks using hammer drill, with 45º angle from surface as image 2-1. To prevent that packers don't penetrate through a crack.



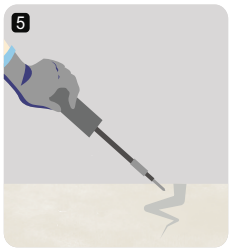
POSITION IT ZIGZAG

As image 3, hole positions must be zigzag.



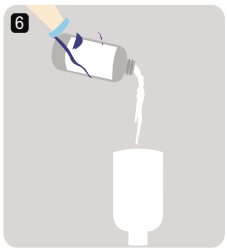
KEEP 15-20CM DISTANCE

Make a hole as per images 2 & 3 each separated by gap of 15-20 cm from each other.



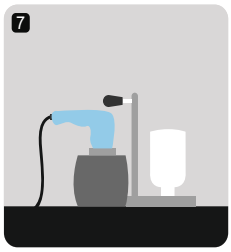
INSERT PACKERS

Insert packers into the drilled holes. Fasten packers tightly using T- wrench.



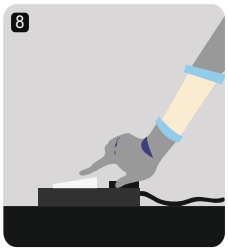
POUR PU INJECTION (GS 500)

Pour the PU injection (GS 500) into the plastic bottle.



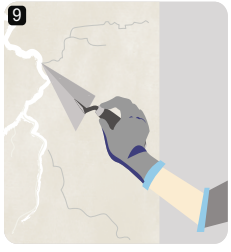
CONNECT THE COUPLER

Connect the grease coupler with the installed packer. (Inject first at low area, and then go to upper area) Down up



INJECT PU RESIN

Push the switch for running machine, and inject PU resin into a hole. Start with low pressure, and increase pressure. When PU resin flows out from the cracks, stop injection, and move to another packer, and start injection again.



REMOVE PACKERS

After finishing injection work, remove packers by hitting packers using a hammer. Clean the surface using a scraper or a grinder, and if needed, coat with sealing materials. How one will inject PU, after packer removal. Damaged area can be sealed with polymer modified mortar.

CLEAN THE MACHINE

After doing injection grouting, clean the machine properly using xylene thinner, pour that Xylene thinner in the jar of the grouting machine and follow the procedure of cleaning.

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SHELF LIFE

1 Year in tightly sealed container. Stored at a temperature of 0 to 30°C from date of import. Upto 3 months for reuse on opening the seal but keeping material in closed container free from moisture.

PACKING

5kg / 10 kg / 20 kg Pail.

NOTE

The company's products are sold subject to the Company's standard terms and conditions of sale. Products are warranted against defective materials and workmanship. The company makes every effort to ensure that all the information, recommendations or the specifications provided by it are accurate and true. However as the company has no control over the conditions of use, it cannot accept any liability, either directly or indirectly regarding the usage of its products. Product specifications are subject to change without prior intimation to users as the products are being continuously upgraded.

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