

PROVISIONAL DATA

ISOBOND-31

SBR Bonding Admixture

ISOBOND-31 is a liquid latex admixture based on styrene butadiene rubber that is designed as an integral adhesive for cementitious system. Mortars and concrete prepared from **ISOBOND-31** has excellent adhesion properties, chemical resistant, high strength, and waterproof. It has excellent resistance to hydrolysis (unlike PVA-based bonding system) and will perform very well under humid conditions and other applications subject to continuous and or alternate wetting and drying.

APPLICATION

ISOBOND-31 is used in preparing

- Polymer-modified floor screeds
- Leveling courses patching / repair mortars
- Bonding slurries
- Toppings
- Waterproof screeds
- Thick bed mortar for setting tiles, bricks, marble, stones, and ceramics
- Polymer concrete overlays for highways and bridges and other general concrete reconstruction work.

ADVANTAGES

- Excellent Adhesion-improves bond strength to hardened concrete.
- High Strength-increase compressive, flexural, and tensile strength of cementitious systems.
- Waterproof – when used in place of water provides water impermeable mortars, slurries concrete, renders etc. ideal for swimming pools, water storage tanks, fountains (Consult ACI).
- Chemical resistant – resist mineral oil, diesel, weak acids, salts, chlorinated water.
- Durable – increases weather resistance and wear against high frequency traffic.
- Preserve color pigments from fading or washing out.
- Non-staining, non-flammable, non-toxic.

TYPICAL PROPERTIES

BASIS: 10 Kg **ISOBOND-31**, 50 Kg ordinary portland cement, and 150 kg ASTM C33 sand.

Compressive strength @ 28 days : 30 N/sq. mm
Flexural strength @ 28 days : 7 N/sq. mm
Tensile strength @ 28 days : 4 N/sq. mm
Adhesion to concrete
(transverse shear bond) : 18 N/sq. mm
Drying shrinkage : 0.02%

TYPICAL PROPERTIES

Application	<u>OP Cement</u>	<u>Sand</u> (ASTM C33)	<u>Aggregate</u> 4-6 mm,	<u>ISOBOND -31</u>	<u>Water</u>	<u>Approx Yield, Liters</u>
	Kg	Kg	Kg	Kg	Kg	
Heavy Duty Floor						
Screed, 10-25mm Thk.*	50	75	75	10	6	88
Patching / Repair						
Mortar, 5-40mm Thk.*	50	125		10	6	79
Render, 5-10mm Thk.*	50	150		10	5	87
Bonding Slurry	50			10	20	46

Note: * Mixing water are approximate only subject to adjustments depending on moisture content of aggregates in the field. In general, the amount of mixing water to be added in the mix should be minimized to a level that will achieve a semi-dry, yet cohesive and workable mix. Yield is only approximate and dependent on grading and type of aggregate and water content.

DIRECTION FOR USE

SURFACE PREPARATION

Surface must be structurally sound, clean, and free from dust, oil, grease, curing compounds, laitance, coatings and other loose debris. Surface should be fairly rough to provide good mechanical key. Recommended methods for preparing concrete are by sandblasting, water jet, acid etching, grinding, wire brushing or by pneumatic tools, where steel reinforcements are exposed, concrete should be removed baring all reinforcements on the unsound area. The steel reinforcements should be cleaned and preferably coated with 'EATRUST'. Prior to priming, the concrete substrate should be wetted with water to avoid moisture loss due to suction, but free standing water should be removed.

PRIMING

Prepare bonding slurry/ primer by mixing 5 parts OP cement 2 parts water, and 1 part **ISOBOND-31** by volume. Apply immediately by brush or broom on to the damp substrate at the rate of 2 – 3 square meter per liter. Place topping immediately while **ISOBOND-31** is still wet. If dries it must be removed and the substrate reprimed.

MIXING

First, the dry ingredients are pre-mixed together. Put the required amount of water into a suitable mixing container. Slowly add powder while mixing. Add **ISOBOND-31** last. When mixing in big quantities, a moving-paddle type mortar mixer should be used. When mixing in small quantities, an electric drill fitted with a paddle is recommended. Avoid manual mixing as this may result in segregation, delay and non-uniformity of mix. If mortar has attained initial set, or has stiffened to a point where it is not anymore workable, this should be discarded. Retempering with water or **ISOBOND-31** should not be allowed under any circumstances.

PLACING

Place patching, floor screed or concrete topping immediately after mixing. Level and or finish with appropriate tools. Trowels may be dampened with moist cloth to aid in finishing. Water sprinkled on the surface of the fresh mortar should be discouraged.

CURING

ISOBOND-31 is an air-curing system; however, if areas are exposed directly to sunlight warm temperatures, or rapid air movements, cover immediately with wet burlap sack and maintain this protection at least 24 hours.

CLEANING

All tools should be immediately cleaned with water after use.

PACKING

5 Ltr, 20 Ltr and 210 Ltr pack.

STORAGE

1 year shelf life in original, unopened container stored in warehouses condition.

HEALTH/ SAFETY

ISOBOND-31 is non-toxic and non flammable. Users are advised to protect eyes and skin from accidental splashes. Wear eye goggles, rubber hand gloves and coveralls. Splashes to the skin and eyes should be immediately washed with water. Refer to MSDS for more safety instructions.

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Technical information, data are to be considered as typical values and not sales specification. Actual measured values may vary due to factors beyond our control. Indications concerning function and application of the products are empirical. Although the information is believed to be accurate, there is no warranty by ISOLA. None of the recommendations becomes part of the warranted quality of the products. Due to the fact that the conditions of individual use are beyond ISOLA's direct and continuous control, ISOLA disclaims all responsibility in connection with the use of its products and does not warrant against any loss direct or consequential

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