

# CONCRETE BOND- 101

## PRODUCT DETAILS

### Styrene Butadiene Rubber Based Bonding Agent

**DESCRIPTION:-** **CONCRETE BOND-101** is a styrene butadiene rubber (SBR) based bonding aid and additive for mortars, renders and concrete.

**STANDARDS:-** ASTM C-1059 Type II, ASTM C-932, ASTM C-107, ASTM C-348, ASTM C-882

**USES:-** **CONCRETE BOND-101** is used as a bonding agent between old concrete and new concrete, cementitious plasters, renders etc. it is used to increase water tightness of renders to be applied on internal and external walls, basements, swimming pools, water tanks, tunnels, underpasses, sludge tanks etc. it is also used as an additive in mortars for repair of damaged concrete elements, bonding rush coat for plaster etc.

#### ADVANTAGES:-

- Improves tensile and flexural strength of cementitious mixes
- Helps in reducing attack by aggressive elements by reducing porosity
- Compatible with all types of cements
- Prolonged corrosion protection and abrasion resistance
- Reduces shrinkage
- Suitable for internal and external applications in conjunction with cement
- Non toxic

#### TYPICAL PROPERTIES at 25°C

PROPERTY	TEST METHOD	VALUE
Component	-	Single
Form	-	Liquid
Colour	-	Milky White
Solid Contents	-	50 ± 1%
Specific Gravity	ASTM D-1475	1.02 KG/LTR +/- 0.05
Compressive Strength	BS : 6319-2	10-15% increase over control
Flexural Strength	BS : 6319-3	5-10% increase over control
Tensile Strength	BS : 6319-7	5-10% increase over control
Tensile Bond Strength	ASTM C-932	> 1 N/mm <sup>2</sup> at 28 Days
Pullout Strength	ASTM D-4541	> 1 N/mm <sup>2</sup> at 28 Days
Slant Shear Bond Strength	ASTM C-1042	> 8.6 N/mm <sup>2</sup> at 28 Days

**SURFACE PREPARATION:-** Surfaces should be clean, sound, free of dust, loose particles, grease, oil, etc. Residual primers from previous membrane systems, bitumen should be removed by suitable mechanical means. Absorbent surfaces should be saturated thoroughly with water. Avoid ponding. Exposed rebar should be cleaned to a bright condition by grit or sandblasting.

**MIXING:- As a Bonding Slurry Coat:** As per recommended dosage, and **Concrete Bond-101** to premeasured quantity of water in a suitable container and stir well.

Add cement slowly and mix well using a slow speed drill machine fitted with a paddle.

**As an Additive:** Manual mixing is not recommended. Preferably a forced action mixer or slow speed drill fitted with a paddle should be used.

Weigh the cement (and sand where required) into the mixer and dry blend together for one minute. With the machine in operation, add the pre-mixed **Concrete Bond-101** and clean water. Continue mixing for 3 minutes to ensure complete dispersal into the sand-cement mix. Make any small adjustment to the quantity of clean water but do not significantly exceed the dosage shown below. Mix until homogenous material is obtained.

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## GENERAL GUIDELINES:-

### **Repair Mortars** – Mix Proportions

Thickness 6-40 mm

10 ltr of **Concrete Bond-101**

8-12 ltrs of clean water (as per the required consistency)

50 kgs of Ordinary Portland Cement

150 kgs of sand

### **Floor Screeds** – Mix Proportions

Thickness: 30 mm-70 mm

10 ltrs of **Concrete Bond-101**

6-10 ltrs of clean water

50 kgs of Ordinary Portland Cement

100 kgs of fine aggregate

50 kgs of 10 mm down aggregate

The screed should be of earth moist consistency

### **Renderers** - Mix Proportions

Thickness: 6 mm- 15mm

10 ltrs of **Concrete Bond-101**

6-10 ltrs of clean water

50 kgs of Ordinary Portland Cement

150 kgs of fine sand

The render should be cohesive and of earth moist consistency

\*Above proportions can vary as per site mix design requirements.

### **Water Proofing Use** - Cement Concrete or Cement Mortar use

1 kg **Concrete Bond-101** per bag of cement

## APPLICATION:-

**As a Neat Bonding Agent:** Stir the **Concrete Bond-101** well and apply using brush, roller or spray on the prepared surface. Ensure that the material is spread evenly on the entire surface. Subsequent material to be bonded should be placed while **Concrete Bond-101** is still tacky.

**As a Bonding Slurry Coat:** Apply slurry bonding coat made up of **Concrete Bond-101**, water and cement in the ratio of 1:1:1 by weight using brush or roller.

**As an Additive:** **Concrete Bond-101** modified mortars, toppings and renders must be well compacted on the prepared substrate by trowel. Exposed steel reinforcement should be completely by the mortar. **Concrete Bond-101** modified mortars can be applied at a thickness of 6 mm to 40 mm. where thick sections in excess of 40 mm are to be built-up, the surface of the intermediate layers should be keyed and primed.

## CURRING:-

**Concrete Bond-101** modified cementitious systems should be cured just after initial setting with water or with a suitable curing agent from **Don** range of curing compounds.

## PACK SIZE:-

1 ltr, 50 ltr and 200 ltr

## COVERAGE:-

As a neat bonding agent: 5-7 m<sup>2</sup>/1ltr/coat . Actual coverage depends on texture and porosity of substrate. As an additive for tile adhesives, bedding mortars, sand-cement renders, plasters and screeds, the dosage may vary from 10 to 20% by weight of cement.

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<b>GENERAL INFORMATION:-</b>	<b>Shelf Life</b>	12 months from date of manufacture when stored under warehouse conditions in original unopened packing. Extreme temperature / humidity may reduce shelf life.
	<b>Cleaning</b>	Clean all equipments and tools with water immediately after use. Hardened material can be removed mechanically.
<b>HEALTH and SAFETY</b>	<b>PPE's</b>	Gloves, goggles and suitable mask must be worn.
	<b>Precautions</b>	Contact with skin, eyes, etc. must be avoided. If swallowed seek medical attention immediately.
	<b>Hazard</b>	Regarded as non
	<b>Disposal</b>	Do not reuse containers. To be disposed off as per local rules and regulations.

**Additional Information** Refer MSDS. (Available on request.)

**TECHNICAL SERVICE:-** **Don Building Chemicals (I) Pvt. Ltd.** are available on request for onsite support to assist in the correct use of its products.

## TECHNICAL COLLABORATION WITH



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