# PERMA BOND - AR



# AN ACRYLIC REPAIR AND BONDING AGENT

#### DESCRIPTION

Perma Boand AR is an aqueous emulsion of Acrylic copolymers specially formulated for use with cement. Perma Bond-AR modifies the property of cement in mortars and in concrete to make them perform better.

### **PRIMARY USES**

Corrosion protection of steel. Repairs of structural members.

Repairs of industrial floors.

Waters proofing of basements and tanks by tanking. Repairs to marine structures.

## **ADVANTAGES**

Perma Bond-AR is water resistant and has excellent adhesion to concrete, steel, brick, stones and is compatible with cement. Perma Bond-AR modified mortars and concrete show higher compressive, tensile and flexural strengths. Perma Bond-AR mortar makes concrete resistant to ingress of salt, mineral oils etc. The product is non toxic, hence suitable for use in potable water tanks and food storage tanks.

# **PREPARATION**

For various applications Perma Boand-AR is used in the form of bonding slurry and as an additive in the modified mortar.

# **Bonding Slurry:**

It is obtained by mixing one volume of Perma Bond AR with one and half volume of cement. This bonding slurry is applied immediately within twenty minutes of preparation.

# **Modified Mortar:**

Mix design

OPC 50 Kgs

ZONE II SAND 150 Kgs

PERMA BOND-AR 10 to 15 Litres

WATER 10 to 15 Litres

YIELD 0.112 m<sup>3</sup> or 112 Litres

Dosage: 5 to 15 Litres per 50 kg bag of cement depending upon application and severity of problems.

# DIRECTIONS FOR USE

On a cleaned and prepared wet surface apply Perma Bond-AR slurry by brush. When the Perma Boand-AR slurry is still green and tacky apply modified mortar and trowel it to form a smooth and even surface. Care should be taken to apply modified mortar fast after application of bonding slurry as the bonding slurry has a tendency to dry out fast in hot weather.

#### TYPICAL APPLICATIONS

# CORROSION REPAIR OF BEAMS, COLUMNS AND SLABS

- a) Remove the cover concrete and cut back to the sound concrete zone. Remove all rust from the reinforcement by mechanical means. Apply one coat of "Perma Rust Remover" by brush on the steel.
- Apply passivalar coat to the reinforcement in the ratio of one volume Bond AR to one volume of cement.
- Next day apply one coat of Perma Bond-AR bonding slurry.
- d) When the bonding slurry is still tacky apply Perma Bond-AR modified mortar to a thickness of 20 mm.
- e) Moisture cure for 24 hours and allow it to dry off.

# 2. REPAIRING INDUSTRIAL FLOOR AND FLOOR DUCT NOSING.

- a) Cut back to sound concrete and make the surface wet.
- Apply one coat of Perma Bond-AR bonding slurry.
   When the bonding coat is still tacky apply Perma Bond-AR modified mortar.
- In case of floor duct nosing carefully build up in layers to form the edges.
- d) Carefully finished it to match with the original surface.
- e) Moisture cure for 24 hours and allow it to dry off.

# **PROPERTIES**

Physical Form : Milky White Liquid
Sp. Gravity : 1.03 @ 25°c
Solid Content : 40%±1

Ph : 9.0

Solubility Toxicity Mixes With Water

Toxicity
Particle Size

Non Toxic 0.1 Micron

# PROPERTIES OF HARDENED MORTAR

Results obtained with hardened mortar after 28 days

are as follows : Compressive Strength

40 to 45 N/mm<sup>2</sup> 6 to 8 N/mm<sup>2</sup>

Tensile strength Flexural strength

9 to 11 N/mm<sup>2</sup>

Bond strength concrete

to mortar

1.8 to 2.2 N/mm²

Bond strength steel

to mortar

1.8 to 2.2 N/mm²

## **PACKING**

Perma Bond-AR is available in 1 Litre, 5 Litres 20 Litres and 100 Litres packing.

## SHELF LIFE

Perma Bond-AR can be stored upto one year in cool and dry conditions in manufacturer's original packing.

# **QUALITY ASSURANCE**

All "PERMA" branded products are manufactured under strict quality control supervision as per exact manufacturing specification. Should you find the behaviour of the product varying form the claims in the data sheets please stop the use of the product and contact Perma staff or distributor.

#### STATEMENT OF RESPONSIBILITY

Perma branded products when used in accordance with the current published directions for use, perform as per their data sheets / catalogues. The manufacturer and the distributor will not be responsible for other materials and conditions of inferior workmanship.

# PERMA CONSTRUCTION AIDS PVT. LTD.

611 / 612, Nirmal Corporate Centre, Mulund (W.), Mumbai - 400 080, INDIA. Tel.: 91-22-2591 8911 / 2567 4690

Fax: 91-22-2590 3008 E-mail: info@permaindia.com Visit us at: www.permaindia.com

# **DISTRIBUTOR ADDRESS**

An ISO 9001 Company