

# APCOGUARD (X)

# CARBOXYLATED SBR LATEX FOR REPAIRS & WATERPROOFING

- Provides excellent water impermeability
- ✓Offers good workability at reduced water/ cement ratio
- ✓ Excellent Bonding between old and new substrate
- ✓ Acts as a protective coat for steel rebar
- Useful for improving Flexural, Tensile and Bond strength and for water proofing of concrete/mortar
- ✓ Improved toughness and flexibility
- $\checkmark$  Mixes can be applied in thinner sections
- ✓ Improves abrasion resistance of flooring

ApcoGuard (X) is a milky white carboxylated Styrene Butadiene Latex, used for repair mortar for RCC members and floor; waterproofing coating and tile fixing.

It is manufactured by employing state-of-the art emulsion polymerization technology ensuring product consistency.



### AREAS OF APPLICATION

• All waterproofing and repair of mortar/concrete, waterproofing of flat roof, sunken portions

#### ADVANTAGES

•Increases Flexural Strength, Tensile Strength and Bond strength

•Improves workability of cementitious mixes at low water-cement ratio

•Reduces shrinkage and water permeability

•Excellent bonding between old and new concrete

•Improves adhesion to most substrate such as concrete, stone, bricks, non-oily wood, glass, ceramic tiles etc •Improves abrasion resistance

- •Allows trapped water vapors to escape and prevent blistering and adhesion failures
- •Prevents salt penetration into the concrete thus resisting the sulphate and chloride attack
- Acts as anti-corrosive for steel rebar
- •Increases durability of waterproofing coating even in continuous contact with water
- •Imparts resistance to fungal and microbial growth
- •Allows easy cleaning of tools and equipment used for application

#### APPLICATION METHOD

#### RCC REPAIR

#### **Surface Preparation**

- 1. All substrate should be clean and free of dust, laitance, plaster oil, paint, corrosion deposit, and any other deleterious materials.
- 2. Corroded reinforcing steel should be exposed around its full circumference. Mechanically clean reinforcing steel to remove all corrosion products. Wash reinforcing steel with clean water and allow drying. It is always preferable to clean the steel to a bright condition. Use of emery cloth, grit or sand blasting is recommended.

#### Application

- 1. Brush apply a primer coat prepared by mixing 1 Part of ApcoBuild ApcoGuard (X), 1 Part of water and 3 Parts of Cement Ratio over freshly cleaned and dry reinforcing steel.
- 2. Whilst primer is still wet, carefully apply and compact ApcoBuild ApcoGuard (X) mix prepared as per the following proportions at a thickness up to 15-20 mm. Built up the required thickness in subsequent layers of 15-20 mm each over the final coat. Final layer can be finished with trowel to get the smooth finish

Cement	50 Kgs
Sand	125 - 150 Kgs
ApcoBuild ApcoGuard	10 Kgs
Water	Just Sufficient to attain desired consistency

#### **BONDING AGENT**

#### **Surface Preparation**

Surface preparation is the most important step before application to achieve desired results and avoid failure.

- Surface to which ApcoBuild ApcoGuard (X) mixes are to be applied should be clean, sound and free of deleterious materials. All latencies, oil, debris, paint and unsound concrete must be removed.
- The surface must be prepared mechanically using wire brush or shot blaster. Finally vacuum cleaned of all loose solids.
- Allow the concrete surface to dry. Do not place bond coat on standing water.

#### Application

- 1. Mix ApcoBuild ApcoGuard (X) latex and cement in the ratio of 1.0 : 1.5 by weight to get a smooth brushable coat. Paste thus prepared is ready to use as a bonding material.
- Immediately apply single coat with brush. Allow this coat to become tacky and then apply fresh concrete or mortar immediately.

Avoid the bond coat to get dried up completely. However, in case of complete drying, apply second coat.

# WATERPROOFING

#### **Surface Preparation**

- 1. For waterproofing of existing slab, the mother concrete slab must be stripped off its old treatment completely. Mechanical methods must be adopted to prepare the surface and vacuum suck to clean off all loose particles & debris
- 2. Mother slab must be sound / mechanically surface prepared / grouted for internal cracks
- 3. Surface cracks must be suitable treated with Polymer Modified Mortar (PMM)
- 4. The slab must be thoroughly wetted with water to a state where it is saturated. But, extra care must be taken to see that there is no stagnant or standing water. Any such water must be mopped off. Ensure a saturated surface dry condition, where slab is thoroughly wet but dry to touch before further treatment.

#### FLOOR SCREED

#### Surface Preparation

- 1. All surface must be clean and structurally sound. Oil and grease must be removed.
- 2. Profiling of the floor is essential. Cut the floor to get rectangle shape and sufficient depth for filling. Under no circumstances depth of filling should not be less than 12 mm. Edges can be cut to an angle less than 90° for better results.
- 3. For best results the surface of the concrete should be mechanically scarified or scrabbled although other methods including sandblasting and acid etching may be employed. It is essential that the surface is thoroughly brushed and residues washed away.

#### Application

- Mix ApcoBuild ApcoGuard (X) latex and cement in the ratio of 1.0 : 1.5 by weight to get a smooth creamy paste. Apply first coat when the surface is in touch to dry condition and allow it to dry for 4 - 5 hours.
- 2. Apply second coat at right angle to first coat with same latex cement ratio then allow the film to air cure at least for 72 hours.
- 3. For horizontal application, 15 –20 mm cementsand mortar screed in 1:3 shall be laid over this coating, which protect the film from damage and allows further work.

#### Application

- 1. Cement slurry modified with ApcoBuild ApcoGuard (X) can be used as bonding coat (0.90:1.5 proportion)
- 2. Make the floor screed mortar as specified below.
- 3. Place the mix material on the repair area immediately when the bond coat is tacky with a trowel to a required thickness.
- 4. If the thickness is more than 25 mm, it should be filled in two layers with a bond coat. The area of patch should be restricted to 20 22 sqft. For a larger application area, it should be divided into small areas of 15 20 sqft and then filled.
- 5. Allow final layer to set for 24 hours and cure with sprinkle water for 3 days.
- 6. Light traffic can be allowed after 24 hours.

Cement	50 Kgs
Sand	125 - 150 Kgs
ApcoBuild ApcoGuard	10 Kgs
Water	Just Sufficient to attain desired consistency

# COVERAGE

Application Area	Coverage*
Bond Coat	55 - 60 sqft par kg for single coat
Waterproofing Coat	25 - 30 sqft per kg for double coat
Repair Mortar	7 - 8 sqft per kg for 10 mm thickness

\*Note: Coverage may vary depending upon substrate condition

# PRECAUTIONS

- Always use fresh, cement and sharp clean, wellgraded aggregates.
- It is used with OPC/PPC grade of cement.
- Keep mixing time to a minimum see above recommendations
- Always add cement into latex and not latex in cement.
- Do not apply coating over loose and debond surface
- Don't use hard water for mixing with polymer / cement.

# PACKING

1, 5, 26, 50 & 100 Kg.

# HEALTH AND SAFETY

Keep out of reach of children. Keep in cool place. If in contact with eyes, rinse with plenty of water and seek medical attention if irritation develops. If in contact with skin, wash immediately with plenty of soap and water.

# **TECHNICAL INFORMATION**

Apperarance	Milky White Pourable Liquid
% Total Solids	47 <u>+</u> 1.0
pH at 25 deg C	10 + 0.5
Brookfield Viscosity LVF (CPS) SP 1,12 RPM at 25deg C	30 max
Specific Gravity	1.01 - 1.02
	Store between temp of +5 and 40 deg C. Keep containers
Storage	closed when not in use. Protect from Direct Sunlight and
	freezing
Shelf Life	12 Months

# **APPLICATION PROPERTIES**

Pot Life (1.0 : 1.5)	1 to 1.5 Hrs
Permeability to water (IS 2645 -1975)	Passes
Adhesion	Excellent

**DISCLAIMER:** These suggestions and data are based on information, which we believe to be reliable. They are given for information only and in good faith, but without guarantee, as conditions and methods of use of our products are beyond our control. We recommend that the user determine the suitability of our material and suggestions before adopting them on a commercial scale.

Recommended use in construction segment.



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