

# MixPROTECT IEX400

High performance Elastomeric damp-proof / anti carbonation system

**MixPROTECT IEX400** system is a pure acrylic based elastomeric protective / damp proof coating system with unique formulation designed to protect the exposed concrete structures and masonry surface from carbonation, chloride attacks, industrial pollution, extensive humidity etc. The special acrylic binder provides durable and long lasting finish with maximum resistant against dust pick up

**MixPROTECT IEX400** increase the life span of reinforced concrete structures and masonry surfaces exposed to aggressive environment, carbon dioxide, Sulphur dioxide, chloride ions, highly humid etc. and prevents moisture ingress and increase the life span of such structures

## Area of application

**MixPROTECT IEX400** is as an anti-carbonation, protective, damp proof and decorative coating for Bridges, flyovers, via-ducts, Subways, underpass, tunnels, Sports stadiums, parking garages, Jetties, berths, Cooling tower, silos, chimneys, Power plants and all concrete or cementitious exterior surfaces of residential, commercial & Industrial buildings, that are exposed to extreme atmospheric conditions and RCC members with less cover such as podiums, fins and facades

## Characteristics

- Protection against ingress of carbonation and chlorides
- Breathable – allows water vapor to escape from the structure without allow moisture to penetrate into the structure
- Elastomeric - Crack bridging capability
- Good for protection of structure from adverse marine and coastal environment
- UV stable and color retention
- Acts as damp proof layer, blocking rain water and moisture ingress
- Resist the tendency to dirt pick up
- Resistant to chalking and flaking
- Excellent in resistance against the growth of algae and fungal
- Easy application by roller and brush
- Excellent adhesion to concrete and masonry
- High diffusion resistance against CO<sub>2</sub> – thus reducing the carbonation
- Excellent chemicals resistance to
  - Carbon dioxide
  - Chloride ions
  - Sulphur dioxide
  - Gasoline, diesel
  - Sewage, diluted acids and alkalis

## Technical Data & Properties

Appearance	: Viscous liquid
Colour	: White / light pigmented
Density	: 1.1gm/cc
Solids content	: 60% ± 2% by weight
Adhesion to substrate ASTM D 4541	: >1.5 N/mm <sup>2</sup>
Tensile strength ASTM D 638	: >2 N/mm <sup>2</sup>
Pull of strength (base primer)	: 2.5N/mm <sup>2</sup> (EN 1542)
Application temperature	: 5 °C to 50 °C
Reduction in chloride ion ingress	: 97%@28 days
Water vapor transmission	: 26gms /m <sup>2</sup> /24 hours
Artificial weathering	: Pass after 2000hrs (EN 1062)
PH	: 9±1 @25°C

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Brookfield viscosity	: 50000 $\pm$ 1000 c/s @25°C
Elongation	: $\geq$ 400%
Recommended DFT	: 300 to 500 microns dependence on surface condition
Touch dry	: 2 hrs. at 25°C
Recoat able	: 6-8 hrs. at 25°C
Full cure	: 7 days
Application temperature	: 10 to 50°C

## Product Management

Surface preparation: Concrete and masonry substrates shall be at least 28 days old and the moisture content less than 7%. It should be dry and free of dust, dirt, oil, grease, loose particles, curing compounds, excising paint coatings, form release agents etc. This can be achieved by wire brushing, grit blasting, high pressure water jetting etc.

Repair: Pinholes, blow holes, medium surface undulations etc. shall be repaired with MixBUILD® GP – repair mortar, honey combs shall be repaired with MixBUILD® SR – structural repair mortar

System specification: Over the prepared surface apply MixPRIME® SB300 as base primer for the system without any modification at 0.400L/Sq. m. Keep 4 hours for primer to get cured. Fill the blow holes or developed crack by using MixFLEX® AC – polymer filler and allow sufficient curing time of 24 hr. Apply second layer of modified bonding primer slurry with MixPRIME SB300 modified at 2:1:2 (MixPRIME® SB300:Water:White cement) at 0.500L/Sq. m Subsequently finish the final protective layer with two coats of MixCOAT® AC400 a 0.300L/Sq. m per coat

Mixing: Stir MixPROTECT IEX400 components well to get a homogeneous mix before applying

Application procedure: MixPROTECT IEX400 can be applied by brush, roller or air less spray. (Nozzle tip: 0.021" – 0.027", Spray angle: 65-80°, Pressure at nozzle: 2100psi). Do apply in one more coats to ensure a continuous even film. Two neat coats should be applied without any dilution

## Packing & Storage

MixPROTECT IEX400 is available in 20/10/5/liter pack and it shall be stored in cool, dry and shaded condition. Shelf life is 12 months when stored under cover, out of direct sunlight, protected from extreme temperatures and as per manufacturer's recommendations. In extreme tropical climate, the product shall be stored in cooled ambience. Excessive humidity and over exposure to UV will result in the reduction of shelf life

**Health & Safety:** MixPROTECT IEX400 contains no hazardous substance. As with all construction chemical products, caution should always be exercised. Reseal all containers after use. Treat any splashes to the skin or eyes with fresh water immediately. For more details, please refer to the MSDS released on each product

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Technical information given in this data sheet is true and exact to the best of our knowledge, laboratory upshot and hands - on application. The data sheets of all products are revised/updated regularly and hence ensure that the latest release is used for reference and recommendation. The date of publishing is as in this sheet. All data are mean of numerous tests, assessment and analysis conducted under laboratory ambience. climatic disparity in temperature, humidity, etc... and porosity of substrate may impinge on the values.

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