

### MONNELI MANTOCOLOR W

*Elastomeric, Protective, Anti-Carbonation & Waterproof Coating*

#### Product Description

Elastomeric water based protective coating based on high quality acrylic co-polymer. It is used as a protective, waterproof and decorative coating for concrete surfaces.

Totally impermeable to water and resists aggressive atmospheric agents, yet it allows the substrate to breathe.

#### Uses

MANTOCOLOR W can be used as follows:

- Protective and decorative coating for reinforced concrete structures against carbonation
- Due to its elasticity, it can be used to coat structural elements subject to small deformation due to mechanical and thermal stresses as it will bridge possible minor cracks
- Protective coating for asbestos cement sheets
- Flexible waterproofing coating for variety of substrates such as tiles, asbestos, cement fibre, timber etc.
- MANTOCOLOR W can be used in all types of structures including commercial, industrial, car parks, bridges, etc.

#### Advantages

- Allows vapor to escape from the structure.
- Excellent characteristics of adhesion to the support, with high ageing resistance
- Protects concrete against acid rains, chloride ions, sulphates and atmospheric gases
- Resistance against diluted acids and alkalis
- High UV-resistant, therefore, maintaining color integrity

- Environment friendly, safe to be used in enclosed areas.
- Durable and economical
- After total curing, MANTOCOLOR W coating can be washed with water and detergents
- Suitable for applications on new and existing structures

#### Instructions for Use

##### Surface Preparation

The surface should be sound, dry, clean and free from grease, loose particles, oil, curing compound, laitance, or any other contaminating material.

Proper preparation for the surface is quite essential in order to achieve a good bonding with the coating. Grit blasting can be the best tool to achieve a clean surface. In case of algae or any other growth contamination, clean the surface with biocide after completing the grit blasting process. After grit blasting, the surface should be cleaned of all loose material by blowing off with dry oil free compressed air.

Remove all traces of curing compound and shuttering oil. Do not use paint remover or solvent to clean the surface. In case of deep contamination which is shown after blasting, clean the surface with steam using suitable detergent solution (in as 2% concentrate of non-ionic detergent in water).

ACRYFIL, an acrylic based pinhole filler can be used for filling small pin holes and for levelling minor irregularities in order to achieve a uniform surface. If the surface contains medium size blow holes, minor irregularities or cracks, fill these holes using a suitable cementitious flexible plaster like RASOCELL. Window glasses, grass, plants, joint sealants, painted areas should be well protected during application.

### Priming

On the clean dry surface apply BETOCURE R as the primer using brush or proper spray machine with a rate of 5m<sup>2</sup>/ Liter. For porous substrates use IDROSIL XS, a Silane-Siloxane primer which penetrates deeply into the porous substrate and reacts to produce a bonded hydrophobic lining to the pores. Apply by brush, roller or low-pressure spray at a rate of 6-8m<sup>2</sup>/Liter depending on the porosity of the substrate.

Alternatively, IDROSIL L, an acrylic water based primer can be used as a concrete sealer. It is recommend to apply the coating material immediately after the primer is dry to avoid any future contamination to the primed areas.

### Mixing

MANTOCOLOR W should be stirred before use until a uniform color and consistency is achieved

### Application

MANTOCOLOR W can be applied with a brush, roller or by spraying machine. For satisfactory results, two coats (200 micron each) should be applied with a gap of 12–24 hours in between depending on support and temperature conditions. In case of spraying, dilute the product with 5-10% of water. The first coat of product should be however applied with a brush, in order to achieve a uniform coating.

### Cleaning

Tools and equipment should be cleaned with water immediately after use. Hardened material should be removed mechanically.

### Recommendations

- Do not apply MANTOCOLOR W with fog, imminent rain forecast or with the weather humidity more than 85%.
- Do not apply MANTOCOLOR W for submerged water conditions.

### Consumption

Approx. 5m<sup>2</sup>/Liter per coat according to the porosity of support.

### Packaging

MANTOCOLOR W is supplied in 20 Liters plastic containers.

### Technical Data

Properties	Results
Density (dry) at 25°C	Fluid paste
Standard colors	Grey, white, other colors on request
Density at 25°C	1.45 kg/L
Solid content by weight	70%
VOC	43 g/L
Elongation (ASTM D 638)	380 %
Tensile strength (ASTM D 638)	1.55 N/mm <sup>2</sup>
Resistance to chloride Ion Penetration (ASTM C1202)	97 %
Chloride ion diffusion coefficient (NT Build 492)	1.69 x 10 <sup>-13</sup> m/sec
Water vapour transmission (ASTM E96-95)	23.8 g/m <sup>2</sup> /24-hr
Carbon dioxide diffusion resistance (NT Build 372:1991-02)	Resistant to carbonation attack
Crack bridging capacity (ASTM C1305)	At 3.2mm
Water resistance	100 %
Superficial drying at 25°C	about 30 minutes
Pull off strength (ASTM D4541-95)	1.68 N/mm <sup>2</sup>
Ageing resistance	Excellent
Chemicals resistance	Excellent against rain, sea salt diluted acid, sewage, alkalis and atmospheric agents
Temperature of application	+5°C to 35°C
Service Temperature	-5°C to 80°C

Tests performed at 25°C, 50% of relative humidity and in absence of ventilation.

All values are subject to 5-10 % tolerance.

## Storage

Keep the product in dry covered shed at temperature between +5°C and +30°C. In these conditions, the product shelf life is 12 months.

## Health & Safety

During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment. Avoid inhalation of vapors.

In case of contact with skin, rinse with water and again wash thoroughly with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly.

If ingested, obtain medical attention immediately. Do not induce vomiting.

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