

MONODEX CLEAR

Clear, Water-based Anti-Carbonation Coating

USES

MONODEX CLEAR is a clear, elastomeric, water-based anti-carbonation coating with high diffusion resistance to carbon dioxide, offering complete protection from the effects of carbonation. It provides an effective barrier to water penetration and the ingress of airborne chlorides, whilst also allowing the release of moisture from the substrate. **MONODEX CLEAR** is designed for application to external walls and façades, enhancing the natural appearance of the underlying substrate, in particular decorative concrete finishes and exposed aggregate panels.

ADVANTAGES

- Outstanding protection against the effects of carbonation, chloride ions and aggressive chemicals.
- Retains the surface texture of the substrate it is protecting and enhances the original appearance.
- Self-priming and rapid drying, allowing two coats to be applied in a single day.
- Low hazard, low VOC (Volatile Organic Compounds) and virtually odourless.
- Water-based product with no flash point, equipment easily cleaned with water.
- Cures to form a clear, satin finish which sheds dirt and retains clarity throughout its long life.
- Active encapsulated in-film biocide inhibits the growth of mould, mildew and lichens.
- Water-repellent finish, yet allows damp substrates to breathe and dry out without blistering.
- Permanently elastomeric and UV resistant.

PRODUCT DESCRIPTION

MONODEX CLEAR is a single component, waterborne, transparent coating that offers an excellent defence against carbon dioxide ingress and the effects of weathering, significantly prolonging the maintenance free life of buildings and structures. Applied without a primer, it forms a clear, satin finish that retains the original appearance of the concrete substrate to which it is applied. It prevents water ingress, yet allows damp substrates to breathe and dry out, and is both dirt and UV resistant. Long term protection from the growth of mould and fungi is assured with the use of advanced encapsulated biocide technology to help maintain its original appearance.

TECHNICAL DATA (TYPICAL)

Basis: Water based acrylic copolymer.
 Solids Content: 33.6% (wt) 38.0% (vol)
 Specific Gravity: 1.04
 VOC Content: <0.29% by mass.
 Min. Application Temperature: 3°C

Curing/Drying Time (approx. depending upon temp.):
 Touch dry in 1 hour at 20°C.
 Dry to overcoat in 1-2 hours normally.
 Product is through cured in 2-12 hours

Elongation At Break (150µm DFT) BS903 Part A2:

Elongation 164%

Tensile Strength 4.03MPa

Water Vapour Transmission (V): BS EN ISO 7783-2

V = 50g/m²/day

Equivalent Air Layer Thickness: S_D = 0.42m

Liquid Water Transmission Rate :BS1062-3:

W=0.02kg/(m².h^{0.5})

Permeability to Carbon Dioxide: EN 1062-6

D_{CO2} = 2.76 x 10⁻⁷ cm²/s

Equivalent air layer thickness, R, = 83m at 150µm DFT

An effective barrier to CO₂ is R >50m

Equivalent Concrete Thickness: S_c = 210mm

Accelerated Weathering:

EN 1062-11: No blistering, cracking or flaking after 2500hrs QUV-B weathering.



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0086-CPD-530942

EN1504-2: Surface Protection Systems

Moisture Control (MCC)

Adhesive Bond: Pass ≥ 3.0MPa

Water Vapour Permeability: Class I <5m

Capillary Absorption: Class III <0.1 kg.m⁻².h^{-0.5}

Artificial Weathering: 2500 hours

Dangerous Substances: Complies with 5.4

APPLICATION DATA

Application Guide available on request.

PREPARATION

The areas to be treated must be free from all unsound material, i.e. dust, oil, grease, corrosion by-products and organic growth. Surface laitance & any soft, sandy or flaking material should be removed by mechanical means back to a sound surface, suitable for treatment. Use techniques capable of achieving the required degree of preparation. Fill static cracks and other minor defects such as blow holes to achieve a super-fine finish with **MONORUB**, available in White and Grey formulations, which can be blended to match the substrate colour. Allow to cure for a minimum of 24 hours before proceeding.

Substrates contaminated by mould, algae, mildew, bacteria, etc., require pre-treatment with **BIODEX WASH (Clear)**. Please consult separate Technical Data Sheet and Application Guide.

EQUIPMENT

Brushes: Wide, soft nylon or bristle paint brushes.

Rollers: Use a medium pile roller.

Spray: Airless spray can be used with care on smooth substrates. Most types are suitable operating at 2500-3000psi tip sizes 13-23 thou. Further details available on request.

COATING

Apply **MONODEX CLEAR** over the surface dry substrate by brush, roller or airless spray at the coverage rate given below taking care not to entrap air into the coating. Allow to dry for a minimum of 1-2 hours until touch dry before applying a second coat as above. Do not apply if rain is imminent.

COAT	COVERAGE RATE			
	l/m ²	m ² /l	WFT (µm)	DFT (µm)
1ST	0.20	5.0	200	Nominal 150
2ND	0.20	5.0	200	
OVERALL	0.40	2.5		

Coverage rates quoted are for smooth, non-absorbent surfaces. Allowances should be made for uneven or absorbent surfaces.

CLEANING

All tools should be cleaned with water immediately after use.

SHELF LIFE

Shelf life is 24 months for unopened containers stored in frost free conditions away from heat.

PACKAGING

Pack Size: 5 and 15 litre plastic containers.

SAFETY DATA

Safety Data Sheet available on request.



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Quality
Environmental
Health & Safety

The information herein is correct to the best of our knowledge, but it does not necessarily refer to the particular requirements of the customer. If the customer has any particular requirements it should make them known in writing to Flexcrete Technologies Limited, and obtain further advice accordingly.