

Monodex ICB

Intermediate Crack Bridging Filler and Coating

Product Overview

Water-based elastomeric compound with enhanced crack-bridging properties. CE-marked in accordance with EN 1504 Part 2

Uses

For use on concrete structures which exhibit existing cracks up to 1mm or which have a high risk of cracks forming.

Advantages

- Versatile, trowel applied or diluted with water for roller and spray application. Mixed with sand as a mortar.
- Water-based and low odour, curing rapidly without the release of hazardous solvents.
- Active encapsulated in-film biocide inhibits the growth of mould, mildew and lichens.
- Fills cracks, pores, cavities and blowholes. High solids content minimises shrinkage in deeper applications.
- Economic material requiring no substrate or inter-layer priming. Can be applied to existing paint finishes.
- Excellent crack-bridging properties even at temperatures as low as -20°C.
- Able to bridge cracks and joints up to 1mm.
- High diffusion resistance to carbon dioxide, enhancing the anti-carbonation performance.
- Low water vapour diffusion resistance allows damp substrates to breathe and dry out without blistering.



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EN1504-2: Surface Protection Systems

- Coating Protection Against Ingress (PIC)

Adhesive Bond:	Pass $\geq 0.8\text{MPa}$
Water Vapour Permeability:	Class I $<5\text{m}$
Permeability to CO_2 :	Pass $>50\text{m}$
Capillary Absorption:	Class III $<0.1 \text{ kg.m}^{-2}.\text{h}^{0.5}$
Accelerated Weathering:	5000 hours
Dangerous Substances:	Complies with 5.4
Reaction to Fire:	Euroclass F

Technical Data / Mechanical Characteristics

Property	Standard	BS EN 1504-2 Requirement	Result
Basis			Styrene acrylic copolymer
Adhesive Bond to concrete	EN 1542	$\geq 0.8 \text{ MPa}$ Crack bridging or flexible systems	$> 0.80 \text{ MPa}$ at typical DFT
Water Vapour Transmission	EN 7783-2	Class I (Permeable) $S_D < 5\text{m}$	$S_D = 0.33\text{m}$ (Class 1)
Accelerated Weathering	EN 1062-11		No blistering, cracking or flaking after 5,000 hours QUV-B weathering
Permeability to CO_2	EN 1062-6	$S_D \geq 50\text{m}$ (R)	$S_D = 417\text{m}$ at 600mm DFT
Equivalent Concrete Thickness			$S_C = 1245\text{mm}$
Static Crack Bridging	EN1062-7	Class A3 $>500\mu\text{m}$	1mm at 20°C.
Elongation at Break	BS 903 Part A2		300% at 600 μm DFT
Tensile Strength	BS 903 Part A2		0.55MPa
Solids Content			74.0% (wt) 66.0% (vol)
Specific Gravity			1.34

Property	Standard	BS EN 1504-2 Requirement	Result
VOC			<0.29% by mass
Curing / Drying Time (approx.)			Touch Dry (ideal conditions): 1-3 hours Through Dry: 2-24 hours
Minimum Application Temperature			3°C.
Reaction to Fire	BS EN 13501-1	Euroclass	Euroclass F

The properties given above are obtained from laboratory tests: results obtained from on-site testing may vary according to site condition.

Application Instructions

Preparation

Areas to be treated must be free from unsound material, i.e. dust, oil, grease, corrosion by-products and organic growth. Mechanically remove surface laitance and any soft, sandy or flaking material. Use techniques to achieve the required degree of preparation, such as wet grit or water blasting techniques or equivalent approved methods. Flexcrete Concrete Repair Mortars must be allowed to cure for a minimum of 24 hours. Leave concrete and cementitious screeds or renders for a minimum of 10 days, preferably 28 days. Our Technical Department will advise on treating other substrates.

Equipment

Brushes: Wide, soft nylon or bristle paint brushes.

Trowel or Float: Steel.

Rollers: Medium Pile synthetic cover.

Spray: Airless spray at 2500-3000psi: finish off in one direction.

Priming of Concrete

No primers required. On highly absorbent surfaces dilute 2 parts **MONODEX ICB** with 1 part clean water by weight and apply at a coverage rate of 5m²/l by brush or roller as a sealing coat. Ensure substrate moisture content is less than 20% wood moisture equivalent prior to application and ensure complete coverage. Rough or porous surfaces will increase consumption. For further information, please refer to relevant Data Sheet and Priming Guide.

Coating Application

Apply **MONODEX ICB** by brush, roller, trowel or airless spray depending on the application.

When used as an intermediate coat apply by brush, roller or airless spray techniques at the coverage rates below ensuring that a uniform film is achieved and that all blow holes and surface defects have been filled. To reduce surface texture for roller application, dilute up to 5% with clean water. Dilute up to 10% with water for airless spray application. Apply a second coat as required.

For use as a profiling mortar bulk out with up to 20% by weight of a 0.1-0.3mm clean kiln dried sand and apply by trowel to achieve the desired finish (Bulking with sand will alter properties).

Allow to dry for 1-4 hours in ideal conditions until touch dry before applying a second coat. To assist application and to act as a guide to coverage rates, each coat may be applied in a contrasting colour.

Coverage Rates

Coat	Coverage Rate			
	l/m ²	m ² /l	WFT (µm)	DFT (µm)
Per layer	0.5 - 1.0	2.0 - 1.0	500 - 1000	Nominal 330 - 660

Coverage rates are for smooth, non-absorbent surfaces. Make allowances for uneven or absorbent surfaces.

Reinforcing Cracks and Joints

MONODEX ICB will accommodate cracks and joints typically up to a width of 1mm. Fill larger static cracks with an initial application of **MONODEX ICB** bulked out with sand, allow to dry and overcoat as detailed above. Fill live cracks, construction joints and joints between dissimilar materials with **MONODEX ICB**, allow to dry and if necessary lightly sand to remove any prominent edges before overcoating. Further information is available through our Technical Department.

Cleaning and Storage

All tools should be cleaned with water immediately after use.

Shelf life is 2 years for unopened containers stored in dry, frost free conditions away from heat.

Packaging

MONODEX ICB is supplied in 15 litre containers.

Health and Safety

Safety Data Sheets are available on request.

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.

