Technical Data Sheet

BIODEX HB

Water-based Elastomeric Biostatic Coating

MINIMAL VOC CONTENT 0% to 0.29% VOCs. (Volatile Organic Compounds) contribute to atmospheric pollution.

USES

BIODEX HB is a highly elastomeric, high build hygiene coating for use in the most demanding service conditions. Inherently tough and permanently flexible, it is the ideal choice where substrate movement is anticipated, or where it is appropriate to impart additional tensile strength with overall reinforcement. Producing a full matt, low glare finish which is ideal for hospital operating theatres, **BIODEX HB** benefits from the latest dual action mechanism to protect against the growth of micro-organisms and to provide added protection from germs. **BIODEX HB** is a safe, non-leaching biostatic formulation suited for food, beverage and pharmaceutical.

ADVANTAGES

- Unique dual action in-film protection combined with silver chloride technology
- Independently tested against a wide range of challenge micro-organisms
- Totally non-toxic, non-leaching and non-tainting formulation
- Vapour permeable to allow substrate moisture to escape
- High build matt finish coating with very high tensile elongation
- Permanently elastomeric and ideally suited for overall reinforcement
- Safe, water-based, low odour, minimal VOC coating - wash equipment in water
- Durable, low maintenance coating, easy to maintain and refurbish

PRODUCT DESCRIPTION

BIODEX HB is a resin-rich biostatic membrane that incorporates the latest encapsulated protectant technology in combination with silver ions to give completely safe use and zero leaching into the surrounding environment. **BIODEX HB** effectively prevents the growth of mould and bacteria whilst proven silver ion technology has recognised benefits in limiting the spread of germs. The unique in-film chemistry allows for the ultra slow, controlled release of active ingredients into the coating film throughout a long service life, even where harsh cleaning regimes are followed. **BIODEX HB** is a vapour permeable membrane which can be reinforced to impart increased tensile strength for crazed surfaces or to resist mechanical damage.

TECHNICAL DATA (TYPICAL)

Basis:	Modified styrene acrylate copolymer.
Finish:	2.6 gloss units at 85° (spray).
Solids Content:	60.0% by weight 49.0% by volume
Specific Gravity:	1.33
VOC Content:	<0.07% by mass.
Colours:	Available in a standard colour range with special colours to order.

Min. Application Temperature: 3°C

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EN1504-2: Surface Protection Systems - Moisture Control (MCC)

Adhesive Bond:	Pass ≥ 3.0 MPa
Water Vapour Permeability:	Class I <5m
Capillary Absorption:	Class III<0.1 $kg.m^{-2}.h^{-0.5}$
Artificial Weathering:	20,000 hours
Dangerous Substances:	Complies with 5.4
Reaction to Fire:	Euroclass B-s1, d0

Curing/Drying Time (approx):
Touch dry in 1 hour at 20ºC, up to 4-12 hours at lower temperatures.
Dry to overcoat in 1-2 hours normally. Product is through cured in 2-12 hours, temperature dependent.

Adhesion to Concrete: EN1542:1999 (pull off test) >3.0 MPa at typical DFT

Water Vapour Transmission (V):
BS EN ISO 7783-2:1999 17g/m²/day

Equivalent Air Layer Thickness: S_D = 1.21m
Class I <5m equivalent air layer thickness.

Accelerated Weathering:
EN 1062-11: No blistering, cracking or flaking after 20,000hrs QUV-B weathering.

Elongation At Break (unreinforced):
BS903 Part A2 519% at 245µm DFT.

Service Temperature: -50°C to +80°C.

Resistance to mould, fungi, algae & bacteria, eg:

Mould:
Alternaria alternate, Aspergillus versicolour, Cladosporium cladosporoides, Penicillium purpurogenum, Stachyboytrys chartarum

Fungi:
Aureobasidium pullulans, Rhodotorula rubra

Algae:
Chlorella emersonii, Nostoc commune

Bacteria:
Pseudomonas aeruginosa

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 & 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. All Flexcrete Concrete Repair Mortars must be allowed to cure for a minimum of 24 hours. Concrete & cementitious screeds or renders must be a minimum of 10 days old and preferably 28 days. Please contact our Technical Department for advice.

Substrates contaminated by mould, algae, mildew, bacteria, etc., require pre-treatment with **BIODEX WASH**. Visible areas of growth and associated underlying loose paint or substrate must be removed by mechanical means and the substrate treated with **BIODEX WASH**.

EQUIPMENT

Brushes:	Wide, soft nylon or bristle paint brushes.
Rollers:	Use a heavy nap (¾" or 1") synthetic cover.
Spray:	Airless spray can be used with care on smooth substrates. Most types are suitable operating at 2500-3000psi tip sizes 17-23 thou. Further details available on request.

PRIMING

Ensure the moisture content of the substrate is less than 20% wood moisture equivalent. Apply one coat of **FLEXCRETE BOND-PRIME** to the whole of the prepared surfaces to be treated at a spread rate of up to 5m^2/litre by brush, roller or airless spray. Rough, porous or uneven surfaces will considerably reduce coverage. For further information, please refer to relevant data sheet and priming guide.

COATING

Apply **BIODEX HB** membrane over the primed, dry surface, by brush, roller or airless spray at the maximum coverage rate given below. Allow to dry for a minimum of 1-4 hours until touch dry before applying a second coat as above. To assist application and to act as a guide to coverage rates during application each coat may be applied in a contrasting colour.

PRODUCT	COVERAGE RATE			
	1st Coat m^2/l	2nd Coat m^2/l	WFT (µm) per coat	FINAL DFT (µm)
BIODEX HB	4.0	4.0	250	245

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

REINFORCEMENT CRACKS AND JOINTS

BIODEX HB will accommodate hairline cracks. Larger static cracks require filling with **MONOLEVEL 250F**. Reinforce over live cracks, construction joints and joints between dissimilar materials with **FLEXCRETE FLEX-TAPE** to provide strategic strengthening. Apply a local embedment coat into which the reinforcement is placed whilst the coating is still wet. Allow to dry, and if necessary lightly sand to remove any prominent edges before overcoating the whole area with two coats of **BIODEX HB**. Overall reinforcement with **CEMPROTEC GFM** random weave glass fibre matting is also available. Please contact our Technical Department for further information.

CLEANING

All tools should be cleaned with water immediately after use.

SHELF LIFE

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

PACKAGING

Pack Size: 15 litre plastic buckets.

SAFETY DATA

Safety Data Sheet available on request.

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