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dura.proof hydrokote

DUAL COMPONENT FLEXIBLE HYDRAULIC MICRO-MORTAR PROTECTION & WATERPROOF COATING FOR CONCRETE & MASONRY STRUCTURES

DESCRIPTION

dura.proof hydrokote is a dual component resilient hydraulic micro-mortar used for concrete protection and waterproofing. Once applied **dura.proof hydrokote** forms a bonded, flexible, protective coating which protects concrete and masonry structures from water penetration and corrosion.

USES

- Reservoirs, water towers, retention tanks, engineered structures.
- Under-tile sealant for public and private swimming pools.
- Under-tile or mortar-covering sealant for balconies and terraces.
- Lift shaft basements, car parks, underground structures.
- Under-tile sealant for damp.

ADVANTAGES

- Excellent resistance to sea water, sulphated water and de-icing salt
- Significantly reduces carbonation by protection against CO₂.
- Protects reinforced concrete against corrosion.
- Resistant to micro-crazing.
- Good resistance to UV rays and freeze/thaw cycles.
- Available in cement grey only.

IDENTIFICATION

Appearance	
Component A	Grey powder composed of special cements, fillers and admixtures 60% _{w/w}
Component B	White milky liquid containing resins in aqueous dispersion 40% _{w/w}
Paste density	1.65
Particle size	0 - 0.1mm

TYPICAL PHYSICAL PROPERTIES

Water vapour transmission	0.13g/m ² /24hrs
Durometer Hardness	71
Flexibility - 255mm Mandrel	Pass
Crack Bridging at 2mm	Pass
Tensile Strength (N.mm ²)	1.356
Elongation %	
Original as cast	112.1
After heat aging @50oC for 4 weeks	74.9
Pull-Strength (N/mm ²)	1.0

Average laboratory values provided as a general guide only. Specifications are subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.

SURFACE PREPARATION

Surfaces to be covered must be clean, sound, dust free and without any traces of oil. All loose parts must be raked out.

High pressure water jetting is preferred. Fill honeycombing and blow holes. Where concrete repairs are required, **dura.rep FR** or **dura.rep GT MCI** can be used. Contact **a.b.e.® Construction Chemicals** for advice on specific application requirements.

The substrate must be damp, but no free surface water during application.

BONDING/PRIMING

No primer is required onto concrete substrates.

MIXING

Product Preparation

- Machine-mix ONLY at low speed (i.e. 300 - 500 rpm) using a drilling machine with an appropriate mixing paddle.
- Proceed as follows to obtain an evenly-distributed paste:
 - Pour ¾ of the liquid into a suitable container.
 - Add the powder gradually in order to obtain a plastic consistency.
 - Add the rest of the liquid and mix for a further 3 minutes.
 - Leave to stand for approximately 1 minute.
 - To obtain a more fluid consistency, additional water can be added to a maximum of 1 litre of water per kit.

APPLICATION

dura.proof hydrokote is applied:

- By hand: roller or brush
- By machine: pump or spray gun
- Apply a first coat using a coverage of 1.5 - 2kg/m²
- The second coat can be applied after a drying period of 4 - 24 hours (temperature dependant), using the coverage of 1.15 - 2kg/m².
- The total thickness of the covering should be approximately 2mm, and never less than 1.5mm. product must be applied in 2 coats and not in one application at 3kg/m², as this will lead to hairline cracking.
- Waterproofing membrane can be floated using a filler knife or stainless steel smoothing trowel while still wet.
- Mortar must be used within 20 minutes of preparation (at 20 °C).
- Reinforcing: for substrates showing evidence of micro-cracking or which are likely to be subject to dimensional changes (water towers, structures exposed to thermal shock), the 1st coat should be reinforced by using fibre netting. The latter should be used for all specific reinforcement needs.

Possible covering materials:

dura.proof hydrokote may be left bare, or covered with tiling or a cement mortar screed. High traffic areas should be protected against abrasion. Water tanks and basins can be filled after 7 days drying. It is advisable to use a bonding aid viz. **dura.latex** in the mix of screeds or tile adhesives which are to be used as a covering material over **dura.proof hydrokote**.

PRECAUTIONS

- Minimum 2 coats (minimum total thickness on drying=1.5mm).
- Temperature range for use: 5°C to 35°C.
- The substrate must be dampened prior to application.
- Do not re-dampen between coats. Wipe off any condensation water.
- Where possible, carry out exterior applications in shady, cool conditions.
- The mortar coating must not be exposed to frost within 24 hours of application. Do not apply to frozen or thawing substrates.
- Do not use acid products for the maintenance of engineering structures. Take special care not to damage the mortar coating when cleaning with high pressure water.
- Gloves should be worn.
- Water tanks must be rinsed thoroughly prior to filling.
- Refer to safety data sheet.

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COVERAGE

3 - 4 kg/m² / 2 coats.

CLEANING OF EQUIPMENT

Clean tools with water immediately after use.

PROTECTION/MAINTENANCE ON COMPLETION

Protect the surface against traffic and spillage until cured.

MODEL SPECIFICATION

The coating will be **dura.proof hydrokote**, a two component, flexible hydraulic micro-mortar waterproofing and protection membrane. The waterproofing compound shall be applied in accordance with **a.b.e.® Construction Chemicals'** recommendations viz. at a minimum of 2mm thickness in a 2 individual coating sequence. Each coat to be applied vertically to the other.

PACKAGING

dura.proof hydrokote is supplied as a dual pack 15kg powder component and a 10kg liquid component.

HANDLING & STORAGE

At least 12 months in original, unopened containers. Store in cool (+5°C up to +20°C) and dry conditions. Not frost resistant.

HEALTH & SAFETY

Product safety information required for safe use is not included. Before handling, read product and safety data sheets and container labels for safe use, physical and health hazard information. The safety data sheet is available from your local **a.b.e.® Construction Chemicals** sales representative.

IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.® Construction Chemicals** endeavours to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot - because **a.b.e.®** has no direct or continuous control over where and how **a.b.e.®** products are applied - accept any liability either directly or indirectly arising from the use of **a.b.e.®** products, whether or not in accordance with any advice, specification, recommendation or information given by the company.

FURTHER INFORMATION

Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements.