duraflex

Flexible waterproofing slurry

DESCRIPTION

duraflex is a ready to use flexible slurry based on a special synthetic resin dispersion and a blend of selected cements mixed with carefully graded aggregate.

USES

duraflex is used for :

- Protection and repair of balconies, terraces and haunching concrete of roads and bridges.
- Waterproofing of new and old buildings (internal and external)
- Waterproofing of tanks, containers and water reservoirs.

FEATURES & BENEFITS

- Excellent waterproof barrier.
- Effective on negative or positive side.
- High bond strength.
- Excellent freeze/thaw resistance.
- Excellent resistance to chloride ion penetration.
- Brush, trowel, or spray applied.
- Reliable application
- Self-curing
- Low in lace cost.
- Non-toxic
- Good abrasion resistance.
- Approved for use in potable water systems.

BONDING / PRIMING

No priming required.

SURFACE PREPARATION

All surfaces that are to receive the coating must be free from oil, grease, wax, dirt or any other form of foreign matter that might affect adhesion. Typically concrete may require grit blasting.

Spalled surfaces or those containing large blowholes and other such defects should be repaired using **duraflex** or an **abe** approved repair mortar. Care must be taken when choosing the repair mortar to ensure that it has all necessary approvals for contact with potable water. If the surface contains small blow holes, typically less than 1mm wide, the coating can be applied directly onto the substrate without the need for a treatment. Cracks which are less than 0.3mm in width can be overcoated as long as the crack is not likely to open up to greater than 0.3mm (this is greater than the maximum permissible crack widths recommended in BS 8007:1987, the British Standard Code of Practice for the design of concrete structures for retaining aqueous liquids). Cracks that are greater than 0.3mm in width should be chased-out to 4mm in width and approximately 15mm in depth. This should be filled with duraflex (applied using less liquid providing a thicker consistency). When the material in the crack has hardened the coating should be applied over the crack.

TYPICAL PHYSICAL PROPERTIES	
Nominal coverage	2kg/m^2/1mm thick/coat (2 coats required)
Pot life	@ 10ºC – 2 hrs @ 20ºC –1 hour @ 30ºC – 0,5 hours
Hardening time	Recoatable 16 hours. Resistant to mechanical stress : 3 days Full cure : 7 days
Resistance to water pressure	Attained after 7 days cure Positive pressure : 20 atmospheres Negative pressure : 4 atmospheres
Equivalent concrete cover @ 3mm dft.	180 mm

MIXING

It is essential to use a mechanical mixer, such as a slow speed electric drill fitted with a suitable paddle. Our Technical Department will be pleased to supply details of blade design.

Fill approximately three quarters of component A (milky liquid) into a pail and, with continuous stirring, slowly add component B (grayish powder). Mixing must be continued until the mix is homogeneous and free of lumps.

For horizontal surfaces such as the base of reservoirs, add the remaining component A. for other applications add only sufficient component A to provide a suitable consistency.

When the two components are mixed together, a plastic thixotropic liquid results which is easy to apply.

The very finely dispersed resin component imparts excellent adhesion to concrete, plaster, and natural stone surfaces.

Once cured, duraflex is waterproof and resistant to weathering. It exhibits a high degree of impermeability to water vapour and carbon dioxide. The cured coating is highly flexible and may be used to overbridge hairline cracks up to 0,2mm in width. Duraflex is non-toxic and contains no chlorides.

COVERAGE

Nominal coverage rate: 8m^2/15kg for 1mm wet film thickness. The coverage figure given is theoretical due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced. A minimum coverage of 2kg/m^2/mm applied in not less than two coats is recommended.

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APPLICATION

duraflex may be applied to the correctly prepared surface by short bristled block brush, rubber squeegee, trowel or spray.

Brush : using a block brush, **duraflex** should be applied in three coats to provide a final dry film thickness of between 2 – 3mm on surfaces. Alternate coats should be applied at right angles to each other, allowing 16 hours between coats.
Trowel : horizontal surfaces – the first layer of duraflex should be applied to a thickness of 1 – 1,5mm using a normal trowel. Allow to cure for approximately 16 hours and then apply a second layer using a notched trowel. This is immediately levelled with a spiked roller.

On vertical surfaces, the first layer should be applied with a notched trowel and the second on with a flat trowel. **duraflex** should not be applied thicker than 1,5mm per coat.

Spray : contact our Technical Department for details of the special equipment required. GLOVES SHOULD BE WORN WHEN MIXING AND USING DURAFLEX.

CLEANING

Tools, brushes and mixing equipment should be cleaned immediately after use and before material has set with **abe super brush cleaner** followed by washing with soap and water.

PROTECTION ON COMPLETION

duraflex may be left as is, or:

1. Be tiled over.
2. Painted with high quality PVA acrylic paint.

TEMPERATURE AND RELATIVE HUMIDITY

Application temperature: 5°C – 40°C
Do not apply if rain is imminent.

MODEL SPECIFICATION

Two-component, flexible waterproofing slurry.
The waterproofing compound shall be **duraflex**, a two component, polymer modified, cementitious coating applied in accordance with the manufacturers recommendations, **abe Construction Chemicals (Pty) Ltd**.
The coating shall conform to the requirements of EMPA test 235'528, EMPA test 162'475/2 and UK Water Byelaws Scheme (WRc Listed). The compound shall have a resistance to positive pressure of 20 bars and a resistance to negative pressure of 4 bars.

PACKAGING

duraflex is supplied in 15kg kits.

HANDLING & STORAGE

This product has a shelf life of 6 months if kept in a dry cool place in the original packaging. In more extreme conditions this period might be shortened.

HEALTH & SAFETY

duraflex powder is irritating to eyes, respiratory system and skin. Avoid inhalation of dust and wear suitable respiratory protective equipment. **duraflex** liquid is not classified as dangerous. **duraflex** when mixed becomes highly alkaline. Water suitable protective clothing, gloves and eye protection.
For both components and mixed material avoid contact with skin and eyes. In case of contact with eyes or skin rinse immediately with plenty of water and seek medical advice.

IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **abe Construction Chemicals** endeavours to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot - because **abe** has no direct or continuous control over where and how **abe** products are applied - accept any liability either directly or indirectly arising from the use of **abe** 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. **abe Construction Chemicals** has a wealth of technical and practical experience built up over years in the company's pursuit of excellence in building and construction technology.

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