



a.b.e.[®] Construction Chemicals
dura.[®]cote WB
 Water Based

DECORATIVE FLEXIBLE ACRYLIC POLYMER COATING FOR THE PROTECTION OF MASONRY AND CONCRETE STRUCTURES

DESCRIPTION

The **dura.[®]cote WB** system is a high performance flexible aliphatic acrylic polymer coating with high crack bridging properties. The system comprises: **dura.[®]cote WB** primer, a powerful penetrating organic carrier coat incorporating acrylic resin and silane-siloxane molecules that form a reactive hydrophobic primer barrier coat that chemically bonds to the substrate. **dura.[®]cote WB** is a pure aliphatic acrylic polymer protective topcoat with high elastomeric crack bridging qualities. The system forms a durable, decorative, UV stable protective coating that inhibits the passage of water and aggressive water-borne corrosive contaminants from entering the pore structure of concrete substrate.

USES

dura.[®]cote WB is particularly suited to reinforced concrete structures that are exposed to aggressive atmospheric conditions and attack by waterborne contaminants such as acid gases, chloride ions and carbonation.

ADVANTAGES

- Forms a permanent corrosion barrier against the ingress of carbon dioxide, chloride ions, oxygen and water. Tough, durable, weather resistant and UV stable decorative coating suited to adverse climatic conditions.
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- Coating breaths, readily allowing water vapour to diffuse from concrete pore structure.
- Excellent static and dynamic crack bridging properties allowing elongation and recovery.
- Improved dirt pick-up resistance
- Lower sensitivity to mould and algae growth.
- Excellent barrier to efflorescence

| TYPICAL PHYSICAL PROPERTIES | |
|--|---|
| Volume solids, mixed | 52% |
| Density | 1.4 |
| Brookfield Viscosity 7/20 | 30000 – 35000cP |
| Application rate (per coat) | 4 -6 m ² /liter, min. 2 coats required |
| Wet film thickness (per coat) | Approx. 200 µm |
| Over coating time | Approx. 8 hours |
| Diffusion of Carbon dioxide S _p , CO ₂ , 300 | >200 m |
| Equates to concrete cover of: (@ 30 MPa) | >100 mm |
| Diffusion of Water vapour S _p , H ₂ O, 300 | 0.8 m |
| Reduction in chloride ion penetration | > 90% |
| Crack bridging resistance mm | @ -10°C = 2.1 @ 23°C = 1.8 |
| Flammability | Non –flammable |

SURFACE PREPARATION

The substrate must clean and dry and free of oil, grease, loose particles and cement laitance. Old layers of curing compound, paint, and other contaminants such as moss and algae growth must be removed. The substrate must be mechanically sound. Light grit blasting generally achieves the best results. Spalled or damaged concrete should first be repaired using the **dura.[®]rep** structural repair system (see separate data sheet). It is essential to ensure that on completion, the **dura.[®]cote WB** surface is unbroken and free from pinholes. Surfaces that contain undesirable blowholes and surface blemishes should be filled with **dura.[®]rep FC** cementitious fairing compound which is then allowed to cure for 48 hours. (See separate data sheet).

BONDING/PRIMING

Apply **dura.®cote WB primer** to prepared surfaces at the rate of 2.5 m²/liter (per coat) using a portable knapsack-type spray unit. The surface should be flood coated until the substrate has a uniform appearance and sheen. On porous substrates if the surface remains a dull matt appearance further applications of **dura.®cote WB primer** must be applied until the desired result is achieved. Leave primer to dry for at least 12 hours (@ 20°C) before the application of **dura.®cote WB** commences.

MIXING

Stir contents before applying

COVERAGE

dura.®cote WB: 2-3 m²/liter (total minimum).

dura.®cote WB primer: 2.5m²/liter (total minimum).

APPLICATION

It is imperative to ensure that the correct application rates and over coating times are adhered to. After the substrate has been primed with **dura.®cote WB primer** and has dried out completely (min 12 hours @ 20°C), apply 2 coats of **dura.®cote WB** to the primed substrate by brush, roller, or suitable spraying equipment at the rate of 2.5 m²/liter (total minimum).

Note: A minimum wet film thickness of 200 microns per coat must be achieved. It is essential to ensure that on completion, the **dura.®cote WB** surface is unbroken and free from pinholes. The first coat should be left to dry for 8 hours.

CLEANING

Tools and equipment used for **dura.®cote WB** should be cleaned immediately after use with water before **dura.®cote WB** dries. **dura.®cote WB primer** tools should be cleaned with **abe® super brush cleaner**.

PROTECTION ON COMPLETION

The **dura.®cote WB** system must not be applied to existing coatings or paint. Protect all surfaces such as glass, aluminium, steel, joint sealants, and bitumen-coated surfaces from coming into contact with **dura.®cote WB primer**.

TEMPERATURE AND RELATIVE HUMIDITY

dura.®cote WB must not be applied to a substrate with a temperature of less than 5°C. **dura.®cote WB primer** must also not be applied to a substrate with a temperature of less than 5°C. Do not commence with the application of the **dura.®cote WB** system if:

- Rain is imminent within 2 hours of application.
- When there is a likelihood that the system will be exposed to frost within 48 hours after completion.
- In windy, dusty conditions.

MODEL SPECIFICATIONS

High-performance, water-based, flexible acrylic coating for protecting concrete and masonry agents against ingress of acid gases, chloride ions and moisture.

The protective coating will be **dura.®cote WB**, a high-performance, water-based, flexible acrylic coating for protecting concrete and masonry against ingress of acid gases, chloride ions and after moisture, applied at the rate of 2,5 m²/liter including **dura.®cote WB primer** in accordance with the recommendations of **a.b.e.® Construction Chemicals**. The coating will be capable of bridging a 0.3 mm dynamic crack at 20°C.

PACKAGING

dura.®cote WB is supplied in 20 liter drums, available in grey, dark grey, silver grey and pebble. **dura.®cote WB primer** is a clear liquid supplied in 20 liter drums.

This product has a shelf life of 12 months if kept in a dry cool place in the original packaging. In more extreme conditions this period might be shortened.



a.b.e.® is an ISO 9001:2008 registered company
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HEALTH & SAFETY

dura.®cote WB is non-toxic, nonflammable but should not be allowed contact with skin and eyes. **dura.®cote WB primer** is toxic and flammable. Ensure the working area is well ventilated during application and drying. Avoid flames in vicinity. Always wear gloves and eye protection when working with the material and avoid excessive inhalation and skin contact. If material is splashed into the eyes, wash with plenty of clean water, and seek medical attention.

IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.® Construction Chemicals** endeavors 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. **a.b.e.® Construction Chemicals** has a of technical and practical experience built up over years in the company's pursuit of wealth excellence in building and construction technology.



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