



SAINT-GOBAIN

duracote WB system

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

DESCRIPTION

The **duracote WB system** is a high performance flexible aliphatic acrylic polymer coating with high crack bridging properties. The system comprises: **duracote 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. **duracote 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

duracote 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 /ℓ, min. 2 coats required
Wet film thickness (per coat)	Approx. 200 µm
Over coating time	Approx. 8 hours
Diffusion of Carbon dioxide SD, CO ₂ , 300	> 200 m
Equates to concrete cover of: (@ 30 MPa)	> 100 mm
Diffusion of Water vapour SD,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 **durarep** structural repair system (see separate data sheet). It is essential to ensure that on completion, the **duracote WB** surface is unbroken and free from pinholes. Surfaces that contain undesirable blowholes and surface blemishes should be filled with **durarep FC** cementitious fairing compound which is then allowed to cure for 48 hours. (See separate data sheet).

BONDING/PRIMING

Apply **duracote WB primer** to prepared surfaces at the rate of 2.5 m²/ℓ (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 **duracote 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 **duracote WB** commences.

MIXING

Stir contents before applying.

COVERAGE

duracote WB: 2 -3 m²/ℓ (total minimum). **duracote WB primer**: 2.5m²/ℓ (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 **duracote WB primer** and has dried out completely (min 12 hours @ 20 °C), apply 2 coats of **duracote WB** to the primed substrate by brush, roller, or suitable spraying equipment at the rate of 2.5 m²/ℓ (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 **duracote 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 **duracote WB** should be cleaned immediately after use with water before **duracote WB** dries.

duracote WB primer tools should be cleaned with **abe® super brush cleaner**.

PROTECTION ON COMPLETION

The **duracote 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 **duracote WB primer**.

TEMPERATURE AND RELATIVE HUMIDITY

duracote WB must not be applied to a substrate with a temperature of less than 5 °C. **duracote 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 **duracote 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 **duracote 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/l including **duracote WB primer** in accordance with the recommendations of **a.b.e.®**

The coating will be capable of bridging a 0.3 mm dynamic crack at 20 °C.

PACKAGING

duracote WB is supplied in 20 liter drums, available in grey, dark grey, silver grey and pebble. **duracote 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.

duracote WB primer	30737	22700020
duracote WB white	30738	22702020
duracote WB grey	30739	22702020
duracote WB concrete grey	30740	22706020

HEALTH & SAFETY

duracote WB is non-toxic, nonflammable but must not be allowed contact with skin and eyes. **duracote 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.®** endeavours to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot accept any liability for application – because **a.b.e.®** has no direct or continuous control over where and how **a.b.e.®** products are applied.

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.® has a wealth of technical and practical experience built up over the years in the company's pursuit of excellence in building and construction technology.

Please consult our website for our latest datasheets.

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