SAINT-GOBAIN

duracote PB

HIGH-PERFORMANCE ACRYLIC PROTECTIVE BARRIER FOR MASONRY AND CONCRETE STRUCTURES

DESCRIPTION

The **duracote PB** is a one part high-build flexible pure acrylic with crack bridging properties. **duracote PB** is designed for excellent durability and waterproofing properties. It forms a durable, decorative, UV stable protective barier that inhibits the passage of water and aggressive water-borne corrosive contaminants from entering the pore structure of concrete substrate.

USES

duracote PB 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. Also a protective barrier for masonry, plaster, fibreboard and wood. Ideal for new or previously painted surfaces.

ADVANTAGES

- Single pack
- No volatile solvents
- Forms a permanent protective barrier against the ingress of carbon dioxide, chloride ions, oxygen and water
- Tough, durable, weather resistant and UV stable decorative barrier suited to adverse climatic conditions
- Coating breaths, readily allowing water vapour to diffuse from concrete pore structure with excellent hiding properties
- Excellent static and dynamic crack bridging properties allowing elongation and recovery
- Improved dirt pick-up resistance and easy cleaning
- Non-yellowing and good stain resistance
- Matt finish
- Lower sensitivity to mould and algae growth.
- Excellent barrier to efflorescence

TYPICAL PHYSICAL PROPERTIES duracoat PB meets EN 1504-2 requirements for surface protection systems	
Non-volatile content	51.8%
Volume solids, mixed	37.5%
Density	1.276
pH	9.3
Brookfield Viscosity 7/20	4460cP
Application rate (per coat)	8 - 10 m^2/ℓ, min. 2 coats required
Wet film thickness (per coat)	125 µm
Over coating time	Minimum 2 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,H2O,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
Water Vapour Permeability (EN ISO 7783-1/2)	Free film: Sd = 4.4 m — Class I Coated concrete: Sd = 5.1 m — Class II
Liquid Water Permeability (EN 1062-3)	Water absorption: 0.4751 kg/m^2 w-value: 0.0970 $kg/m^2 \cdot h^{0 \cdot 5}$ — Meets <0.1
Adhesion Strength (EN 1542)	Pull off adhesion: 2.27 MPa. Meets requirement.
Carbon Dioxide Permeability (EN 1062-6)	CO_2 diffusion resistance (Sd): 202 m — Pass
Abrasion Resistance (EN 5470-1 Taber)	Weight loss: 197–222 mg — Meets <3000 mg
Impact Resistance (EN 6272-1)	10.8 N·m - Class I & II
Crack Bridging (EN 1062-7)	up to 2.2 mm @ 20 °C - Class A4
Chloride Ion Penetrability (ASTM C1202)	Very low

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 PB** 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).

MIXING

Stir contents before applying.

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COVERAGE

duracote PB: 8 - 10 m^2/l (2 coats required).

APPLICATION

It is imperative to ensure that the correct application rates and over coating times are adhered to. After the substrate has been cleaned and has dried out completely (min 12 hours @ 20 °C), apply 2 coats of **duracote PB** to the substrate by brush, roller, or suitable spraying equipment at the rate of 8 m^2/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 PB** surface is unbroken and free from pinholes. The first coat should be left to dry for minimum 2 hours. Full cure is 7 days.

CLEANING

Tools and equipment used for **duracote PB** should be cleaned immediately after use with water before **duracote PB** dries.

PROTECTION ON COMPLETION

Do not commence with the application of the **duracote PB** 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

TEMPERATURE AND RELATIVE HUMIDITY

duracote PB must not be applied to a substrate with a temperature of less than 5 °C.

MODEL SPECIFICATIONS

High-performance, water-based, pure acrylic, matt protective barrier for concrete and masonry substrates against ingress of acid gases, chloride ions and moisture.

The permanent protective barrier will be **duracote PB**, a high-build durable, decorative, UV stable barrier protecting concrete and masonry, applied at the rate of 8 - 10 m^2/l 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 with excellent hiding properties and UV resistance.

PACKAGING

duracote PB is supplied in 20 liter drums, available in grey. 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.

HEALTH & SAFETY

duracote PB is non-toxic, non-flammable but must not be allowed contact with skin and eyes. 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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