Strongcoat HB PE

Roll applied epoxy flooring

DESCRIPTION

Strongcoat HB PE is a cost-effective premium quality two-pack, solvent free, epoxy-based coating, which provides floor surfaces with a seamless, hygienic and cosmetically attractive finish.

Strongcoat HB PE is applied by brush or roller in two coats and has very good durability towards pedestrian and vehicular traffic.

It also has very good resistance towards many of the chemicals commonly found in an industrial environment (consult our Technical Department for further details). Anti-slip resistant finishes are available, please consult our Sales Department for further information.

APPLICATIONS

Strongcoat HB PE is used as a protective, decorative, high chemical resistance and hard-wearing floor coating system for a wide range of applications including:

- Aircraft hangars.
- Car parks.
- Soft drink and beverage production areas.
- Show rooms.
- Production, maintenance and assembly areas.
- Warehouses.
- General food processing and manufacturing plants.

ADVANTAGES

- Produces a seamless, glossy, glass-like surface that is both easy to clean and does not induce bacterial and fungal growth.
- Good chemical and mechanical resistance.
- Available in a wide range of attractive colors.
- Cost effective.
- Easy application.
- High build.
- Hydrocarbon resistant.

STANDARDS

Strongcoat HB PE complies with EN 13813, Class SR-B2,0-AR0,5-IR2.

TECHNICAL PROPERTIES:

Color:	Available in various colors
Specific gravity:	1.5 ± 0.05
Pot life:	35 min @ 77°F (25°C)
Compressive strength: ASTM C579	≥ 5075 psi (35 MPa)
Tensile strength: BS 6319-7	≥ 1450 psi (10 MPa)
Flexural strength: EN 13892-2	≥ 3625 psi (25 MPa)
Abrasion resistance: EN ISO 5470-1 (1000 cycles) CS-17 wheel	≤ 55 milligram
Shore D hardness: ASTM D2240	85 ± 5
Bond strength: EN 1542	≥ 290 psi (2 MPa) (concrete failure)

METHOD OF USE

SURFACE PREPARATION

Ensure that all pinholes and grooves in the prepared substrate are properly filled using suitable epoxy putty materials prior to the application of subsequent layers. This is crucial to prevent pinhole reflection and to achieve a smooth, seamless finish.

The surface must be clean, dry (less than 75% RH measured by hygrometer) and free from dust, laitance, oils, paints or other forms of contamination. Grit blasting can be used to remove laitance and surface contamination (see DCP Guide to Surface Preparation for further details). For treatment of surfaces containing expansion joints consult DCP Technical Department.

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PRIMING

Strongcoat HB PE has excellent adhesion to concrete and priming is not normally necessary. If the substrate is particularly porous, a priming coat of Strongcoat DPM is recommended. Spread evenly at the recommended coverage rate, avoiding any primer ponding on the floor. Highly porous surfaces may require two coats of primer.

Strongcoat DPM should be applied by brush or short-hair lambswool roller. One coat of Strongcoat DPM is required where the relative humidity level of the screed is between 75% and 85%. For RH levels between 86% and 98%, use two coats.

Please consult the appropriate data sheets for further details.

MIXING

Taking care to ensure that the bottom and sides are thoroughly scraped, transfer the entire contents of the Strongcoat HB PE Hardener and Strongcoat HB PE Resin container into a mixing bucket and, using a jiffytype mixer attached to a slow-running electric drill, mix for approximately two minutes.

Note: Never mix Strongcoat HB PE by hand as this could lead to areas of uncured material.

APPLICATION

Once mixing is complete, transfer the Strongcoat HB PE to a roller tray and, using a medium-pile simulated sheepskin roller, apply it evenly over the surface.

WORKING TIME

Strongcoat HB PE has a working time of approximately 20 minutes at 68°F (20°C).

Note: Never leave the mixed Strongcoat HB PE to stand for any length of time prior to application as this will considerably shorten its working time.

CURING TIME

At 68°F (20°C) Strongcoat HB PE should be allowed to cure for 24 hours prior to opening it to pedestrian traffic. At the same temperature, Strongcoat HB PE should be allowed to cure for approximately seven days prior to opening it to vehicular traffic or exposing it to chemical contamination (consult DCP Technical Department for details of curing times at other temperatures).

OCCASSIONAL SPILLAGE

Chemical Resistance after full cure (7 days @ 77°F (25°C), ASTM D1308 (Spot - test @ 1 hr)

Organic Acids	
Oleic Acid	R
Acetic Acid 10%	R
Lactic Acid 10%	R
Inorganic Acids	
Sulphuric Acid 25%	R
Sulphuric Acid 50%	RS
Hydrochloric Acid 36%	R
Inorganic Bases	
Potassium Hydroxide 50%	R
Solvents	
White Spirit	R
Acetone	R
Ethanol	R
Toluene	R

R: Resistant
RS: Resistant with slight discoloration

OCCASSIONAL SPILLAGE

Chemical Resistance after full cure (7 days @ 77°F (25°C), ASTM D543 (Immersion test)

Organic Acids	
Oleic Acid	R
Lactic Acid 10%	R
Inorganic Acids	
Sulphuric Acid 25%	RS
Sulphuric Acid 50%	RD
Hydrochloric Acid 36%	R
Inorganic Bases	
Potassium Hydroxide 50%	R
Solvents	
White Spirit	R

R: Resistant
RS: Resistant with slight discoloration
RD: Resistant with obvious discoloration

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OVERCOATING

The second coat of Strongcoat HB PE must be applied no later than 24 hours at 68°F (20°C) after the first coat has cured. Additionally, the first coat of Strongcoat HB PE must not be contaminated prior to applying the second coat.

WORKING CONDITIONS

Strongcoat HB PE should not be applied at temperatures less than 50°F (10°C).

SLIP RESISTANT FINISHES

Apply a coat of Strongcoat Primer to the surface and allow it to cure for the specified time (see the Strongcoat Primer Data Sheet for further details).

Apply a coat of Strongcoat HB PE to the primed surface and, whilst this is still wet, completely blind it with an appropriate grade of Aggregate (consult DCP Technical Department for details of Aggregate grades). Allow the coat of Strongcoat HB PE to cure for the specified time (see Curing Time) then vacuum off the excess Aggregate.

Seal the bound Aggregate with a further coat of Strongcoat HB PE (consult the Technical Department for further details of coverage rates).

Important: The coverage of Strongcoat HB PE will be considerably reduced when using it to seal Aggregate.

CLEANING

Once mixing and application are complete, tools can be cleaned with a suitable solvent.

PACKAGING

Strongcoat HB PE is available in 5 US gal kits (Part A: 3.75 gal, Part B: 1.25 gal).

SPECIFIED COATING THICKNESS

Approximately 8 - 12 mils (0.2 - 0.3 mm) per coat.

COVERAGE

Approximately 120 - 185 ft²/US gal (2 - 3 m²/ kg) at the specified coating thickness. This coverage figure is based on application to a smooth dense surface.

Coverage figures will vary according to the texture, porosity and evenness of the surface on which the Strongcoat HB PE is being applied.

STORAGE

Store at temperatures between 40°F and 86°F (5°C and 30°C).

SHELF LIFE

Approximately 24 months if stored in unopened containers and under good conditions.

If these conditions are exceeded, contact DCP Technical Department for advice.

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CAUTIONS

HEALTH AND SAFETY

Consult the appropriate Material Safety Data Sheets prior to using Strongcoat HB PE.

MORE FROM DON CONSTRUCTION PRODUCTS

A wide range of construction chemical products are manufactured by DCP which include:

- Concrete admixtures.
- Surface treatments
- Grouts and anchors.
- Concrete repair.
- Flooring systems.
- Protective coatings.
- Sealants.
- Waterproofing.
- Adhesives.
- Tile adhesives and grouts.
- Building products.
- Structural strengthening.

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