



POLYDECK BC

INTERMEDIATE BASE COAT FOR CAR PARKS

Product Description

POLYDECK-BC is a three component self levelling system based on polyurethane resin specially designed to impart high mechanical strength and good chemical resistance to flooring systems.

The cured composition is tough, non dusting and has excellent adhesion to variety of substrates including concrete.

Apurva's Polydeck car park system complies to ASTM D 957

Features

- Very good crack-bridging ability even at low temperatures
- Mechanically resistant if broadcast
- Watertight
- Economical
- Solvent free
- Forms jointless flooring
- Non dusting and easily cleanable
- Hygienic
- Very high mechanical strength
- Excellent chemical resistance
- Hard wearing
- Excellent antiskid properties

Green Building Compliance

This product has following distinct advantages

- Eco-friendly
- Low VOC
- Solvent free with a high level of mechanical, chemical and water resistance,
- Low odour
- Antimicrobial
- Low maintenance
- Easy cleanability
- LEED compliant
- Ideal for use in Green Building

Uses

- For highly elastic, crack bridging, trafficable, slip resistant wearing layers
- For car park decks, garage floors, bridges etc.

Properties

Application : Serrated Trowel

Solid Content : 100 %(by weight)

Finish : Gloss/Semi Gloss

Appearance : Clear slightly yellowish

Pot Life @ 30 °C : 25-30 mins

Crack bridging capacity (ASTM C 836) : upto 2 mm

Tensile strength (ASTM C 307) : 10 MPa

Bond strength to concrete (ASTM D 4541) :
(Elcomete pull of test) Exceeds Tensile strength of concrete

Hardness, Shore A (ASTM D 2240) : 70-75

Taber Abrasion Loss/1000 Cycles : 26 mg
(H 22 wheels) (ASTM C 501)

Weather resistance and recovery from elongation:
(ASTM D 412): Recovery from elongation 92.3%
Tensile retention 99.3%

Adhesion in peel after water immersion
(ASTM C 794) : Average peel strength 945 N/m

Curing Time :
Initial Cure : 6 hours,
Full Mech. Cure : 48 hours
Ready for use : To walk – 24hrs
To light traffic : 48 hrs
Full Chemical Cure : 7 days

Chemical resistance- Membrane
(ASTM D471)

Average Tensile strength retention after immersion was found to be :

Water – 78.1%

Ethylene glycol – 94.5%

Mineral spirits – 63.7%

Mixing Ratio - As supplied.

The values given above are average figures achieved in laboratory tests. Actual values obtained on site may show minor variations from those quoted.

Coverage

POLYDECK BC: 0.4 kg/m²

APURVA INDIA LIMITED

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System Information

Car park deck coating system

Coating System	Product	Consumption
Primer	Apurva's Polydeck Prime	0.2 kg/m ²
Base coat	Apurva's Polydeck BC	0.4 kg/m ²
Broadcast wearing course	Apurva's Quartz sand	2.25 kg/m ²
Seal Coat/ Top Coat	Apurva's Polydeck SF	0.4 -0.5 kg/m ²

Method of Application

APURVA's system should be installed by approved contractors. Following information should be used as a guideline

Inspection and Surface preparation

The long term durability of the applied **POLYDECK BC** topping is dependent upon the adhesive bond achieved between the flooring material and substrate. It is most important therefore, that substrate surface is correctly prepared prior to application.

1. New concrete or cementitious substrates should have been placed for at least 28days and have a moisture content of less than 5% before topping with **POLYDECK BC**.
2. Before application, the surface to be coated should be free from loose particles, rust, oils, grease or earlier coatings and should be thoroughly dry.
3. After surface is dry, all repair work like sealing of joints, cracks, filling of cavities and crevices should be carried out.
4. The self levelling action is very localised and does not eradicate irregularities of level present in the original substrate. It is most important, therefore, that adequate surface preparation and repair is undertaken prior to application of **POLYDECK BC** flooring systems.

Concrete defects such as voids, bug holes, excess porosity, and physical and chemical damage are usually filled or repaired prior to the installation of the system. (Materials such as slurries, mortars, and polymer concrete are used to level, smooth and patch concrete surfaces).

The laitance (A thin, weak, brittle layer of cement and aggregate on concrete surface) on in-situ bases and any surface sealer or curing membrane should be entirely removed by suitable mechanised equipment, e.g. shot-blasting, panning or grinding, to expose cleanly the coarse aggregate.

Old Concrete surfaces: All surface contamination, e.g. oil, paint and rubber, should be removed and adequate mechanical preparation carried out to achieve a sound and stable surface with exposed coarse aggregate. (Existing floor paints should be removed by mechanical abrasion or contained shot blasting. When clear of all surface contamination, the concrete should be prepared mechanically to remove all laitance and expose a fresh surface).

After surface preparation all loose debris and dirt should be removed by vacuum- equipment.

Laying

POLYDECK BC shall be mixed and applied only by specialist flooring contractors who have been trained in the correct application procedures. Detailed method of statement is available on request

Mixing:

Pack components are pre-weighed for optimum performance. Never split packs. Empty contents of Base into a mixing container and pre-mix to assure the suspension of solids. Add Curing Agent and continue to mix to a uniform consistency for 1-2 minutes. Add the quantity of aggregates supplied and mix for 1-2 minutes. Mix with slow speed drill and helical spinner head for 2 minutes.

Avoid high speed mixing that will entrain air into the mix.



Special conditions

Substrate Requirements

- Must be of sufficient strength to support loads applied through the topping.
- Must be free from rising dampness.
- All contamination must be removed to give a clean dry textured surface.
- Concrete substrates must be sound and of sufficient compressive strength (minimum 25 N/m²) with a minimum pull off strength of 1.5 N/m².

Substrate Movements

All moving joints must be carried through the **POLYDECK BC** and properly sealed. Construction joints and cracks may be covered but if substrate movement occurs, the **POLYDECK BC** will reflect the crack.

Repairs & Levels

Concrete floors are generally laid to a level tolerance of +/- 3mm under a 3 metre straight edge. Whilst **POLYDECK BC** has excellent local levelling properties, overall level deviations will not be eliminated by laying a self smoothing topping of 2-3mm.

When applied on old floors, all damaged areas of the floor should be made good and upto level using epoxy mortar.

Packaging

POLYDECK BC is supplied in pre-weighed packs for easy handling. Each pack consists of

- 4 .1 kg. - Base
- 1.9 kg. - Curing Agent
- 20 kg. - Aggregates

It can be supplied in Bulk packing also.

Shelf life

POLYDECK BC has a shelf life of 6 months if kept in warehouse conditions at 30°C in the original, unopened pack.

Storage conditions

Store in dry conditions between 5°C and 30°C, away from sources of heat and naked flames, in the original, unopened packs. If stored at high temperatures the shelf life will be reduced

Handling & Safety

Keep the containers tightly sealed when not in use. Avoid skin contact and inhalation of fumes (if any). While spraying it is advised to wear a mask. If it comes in contact with the body, wash affected parts with plenty of water. In case of persistent irritation, contact a physician.

Disclaimer: *The manufacturer reserves the right to change the specifications. Apurva India Limited products are guaranteed against material manufactured and are sold subject to the company's Terms and Conditions of Sale. Whilst we endeavour to ensure that advice, specifications, recommendations and information given is correct, we cannot have control over how our products are applied and will not accept liability, directly or indirectly, arising from application of our materials.*

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