

DESCRIPTION

SHIELDCRYL 305® is a single component Liquid Applied Hybrid Polyurethane with excellent flexibility and high Elasticity. **SHIELDCRYL 305®** is excellent in resisting Carbonation, allowing it to be applied in closed and hot climates.

USES

SHIELDCRYL 305® is Applicable for:

- ☐ Damp-Concrete & GRC Surfaces
- ☐ Roofing
- ☐ Wet Areas, Balconies & Planters
- ☐ Wood
- ☐ Metal Surfaces
- ☐ Exterior masonry building
- ☐ Over fresh concrete substrates

ADVANTAGES

- ☐ High abrasion resistance
- ☐ Excellent UV Resistance
- ☐ Anti-carbonation characteristics
- ☐ Ingress Chloride ion properties
- ☐ Anti Rooting
- ☐ Hard wearing
- ☐ Non-Toxic
- ☐ Crack bridging >3mm
- ☐ Seamless
- ☐ Low VOC

COMPLIANCE

Complies with ASTM C 957-1998, ANSI 118.10, ASTM C 1305

MATERIAL DATA

Type	Hybrid Polyurethane Base
Form	White, Grey and Green
Packing	1USG & 5USG Pack
Storage	24 month in unopened packaging, between 5°C and 35°C

TECHNICAL DATA

Property	Value	Test Method
Solid Content	60 + 1%	ASTM D 1353
Density	1.20 +0.1	ASTM D 70
Tensile Strength	>3.1 N/mm ²	ASTM D 412
Elongation at Break	400 + 25%	ASTM D 412
Bonding Strength	>0.5	ASTM D 624
Tear resistance with reinforcement	>30N	ASTM D 624 Die "C"
(Solar reflectance index)	101 SRI	ASTM E 1980
Solar Reflectance	0.81	ASTM C 1549
Initial Emittance	0.92	ASTM E 408
Shore A	>60	ASTM D 2240
UV Resistance	@ 2000 hours pass	ASTM D 822
Abti-Rooting	Resistant	ITC 2023-3
Crack Bridging Ability @ 3.0mm	No Cracks	ASTM C 1305
Hydrostatic Pressure Resistance @ 3.0mm	>650 Kpa	ASTM D 5385
Pliability Test	No Cracks	ASTM D 146 cls 14
Permeability to Carbon dioxide	>50m	BS EN 1062-6
Resistance to Bacteria	No Attack	ASTM D3456-86
Resistant to Algae	No Attack	ASTM D 5589
Permeability	Nil	BS EN 12390 part 8
Resistance to chemicals	NaOH 10% HCL 10%	ASTM F 925-02
Service temperature	-30 to 95°C	ASTM D 2485

APPLICATION DETAILS

Surface Preparation

Substrate should be sound, clean and free from dirt, dust, laitance and all loosely adhering particles. All cracks larger than 1mm should be filled with cement base concrete repair

Application

Priming:

- ☐ **For New Concrete:** Apply optionally Self primed **SHIELDCRYL 305®** at a rate of 6m²/ltr
- ☐ **For old and suspected grease infected concrete:** Apply one coat **BAYPRIMER PU4060®** "ready to Use" on the substrate with a ratio of 0.5ltr /m² for 10-15min to achieve touch dry.
- ☐ **For Metal Surface:** Apply Epoprime 65, Epoxy Based primer at a rate of 8m²/ltr

Application:

Apply 2 coats **SHIELDCRYL 305®** at 0.5-1.0 mm per coat using roller, airless spray or brush. All edges and touch up are to be applied using a brush, covering all hidden areas if available.

Reinforcement:

Roofing: For improved Durability, Tear and Puncture Resistance characteristics, apply one layer of Reinforcement sheet embedded in between the 2 coats of **SHIELDCRYL 305®**.

Joints & Angels: Optionally, Apply Reinforcement sheet imbedded within the **SHIELDCRYL 305®** layers to ensure proper Tear resistance and Durability

Optional Top Coat:

For higher abrasion resistance on exposed roofs, Apply 1 coat of **BAYPROOF PU 3151®** at a WTF of 250 microns, 24 hours after the partial drying of **SHIELDCRYL 305®**.

Standard Method of application:

1. **Optional** Priming: Refer to the type of prime to be used.
2. Apply 1 coat of **SHIELDCRYL 305®** 0.5-1.0 microns
3. **Optional:** Apply 1-layer reinforcement sheet over Joints and Angles
4. Apply final Coat **SHIELDCRYL 305®** 0.5-1.0 microns
5. **Optional:** Apply 1 coat **BAYPROOF PU 3151®** (clear Coat) for permanently exposed areas

Mixing

For a Homogeneous Mixture, use a low speed machine mixing drill for 1-2 min

Spreading Rate

1.6 ltr/m² @ 1mm thickness
Minimum 1-2 coats are required

Curing

1-2 hours Touch dry
8-24 hours recommended Recoating period
36-48 hrs partial curing and subject to water testing
3 days full curing

SAFETY

Protection Measures

SHIELDCRYL 305® is hybrid polyurethane based and there is risk of cauterization in the event of contact with the eyes; will lead to dehydration and thereof irritation in case of contact with skin. So while mixing and applying the product, protect with safety goggles and protective gloves

- ☐ Splashes to skin must be washed off with water and Soap
- ☐ Splashes to the eyes must be rinsed with clean warm water. Seeking medical attention is highly recommended and mandatory

Transportation

Non-Hazardous Material

Toxicity

Non-Toxic



Important Notice:

The above data is based on our experience and extensive laboratory tests. It may be considered to be a general advice only and cannot be granted to meet the requirements for all the intended uses. It is the responsibility of the end user to ensure that the product is suitable for the purpose for which he wishes to use it. In view of many varying factors that are encountered during the application of the product it does not exclude the end users from not conducting their own test before actually using the product. We are thus only responsible for the quality of the product itself and not responsible for its performance, nor would we accept any liability whatsoever or howsoever arising from the use of this product. Any such matters should be specifically agreed to in writing by us. Bayshield reserves the right to modify the contents of the data sheet from time to time without notice as a system requirement in updating our products from time to time.