

SMARTCARE POLYURETHANE HPR

Flexible and Elastic Hybrid Polyurethane liquid applied waterproof coating having excellent UV resistance

SmartCare Polyurethane HPR is a single-component roller, brush, squeegee or spray- applied, waterproof membrane based on modified polyurethane hybrid technology. It is water based, easy to use, flexible and UV resistant. It is especially suited for exposed roof applications where UV color stability is desired.



AREAS OF USES

For exposed roof waterproofing applications in both new construction and refurbishment projects.

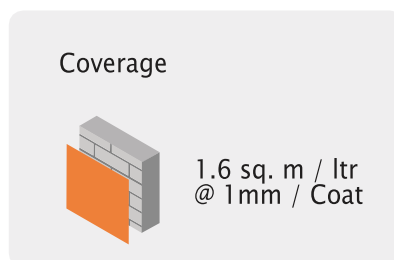
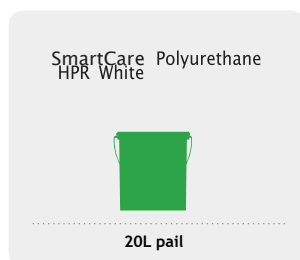
- Waterproofing of roofs, terraces, balconies, domes, aluminium sandwich panels and corrugated sheets.
- Waterproofing of wet areas like bathrooms, toilets, public showers & kitchens.
- Protective and decorative coating on exposed concrete surfaces (both vertical and horizontal).



PRODUCT FEATURES

- Forms a highly elastomeric, tough and resilient membrane.
- Low VOC
- Pitch coal tar free.
- High tensile strength & elongation
- Excellent UV resistance, weather ability & color retention - properties
- High resistance against chlorides, sulphates, bacteria, oil and common fuels.
- Excellent adhesion to concrete and mortar. Fully bonded system.
- Monolithic - no laps, welds or seams.
- High water vapor permeability - low risk of blistering.
- One-component, ready to use and easy to apply
- Excellent elasticity, flexibility and crack bridging capacity
- Resistant to mould growth and roots

PACKING & COLOURS



Prime 1:1 SmartCare Polyurethane HPR /
clean water by volume

5m² per liter of primer

APPLICATION PROCEDURE

SURFACE PREPARATION

- All the surfaces must be cleaned and made free of dust, dirt, moss, oil, grease and other loose particles. This can be achieved by grit/ sand/shot blasting. As a minimum, vigorous wire brushing should be employed. All pin holes and surface defects shall be repaired with a suitable SmartCare Repair* concrete repair mortar.
- Metal surfaces should be abraded or blasted to SA1.0 to expose bright metal and achieve a suitably profiled surface, then wiped clean with Solvent and allowed to dry prior to coating

PRIMING

- SmartCare Polyurethane HPR does not require priming and can directly be applied onto the concrete surface. In case of highly porous surface, a priming coat is recommended to seal the pores and stabilize the surface. The primer coat can be produced on site by diluting SmartCare Polyurethane HPR 1 to 1 with water. Apply the primer coat @ 5m²/L and allow to dry.

MIXING

- SmartCare Polyurethane HPR is a single component product but mix the contents of the pail thoroughly prior to application to remove any sediment. A slow speed drill and suitable paddle mixer shall be used to avoid the formation of air bubbles.

APPLICATION

- The coating can be applied with a brush, roller or airless spray and shall be applied in a minimum of 2 coats.
- The 1st coat shall be allowed to dry completely before the 2nd coat is applied. The 2nd coat shall be applied cross wise to the first coat.
- The coating will achieve its full strength after a curing period of 7 days.

CORNER DETAILING

- It is recommended to reinforce all corners with sealing strip. The sealing strip shall be embedded into the first coat whilst it is still wet and covered fully with the second coat.

CLEANING & DISPOSAL

- Clean all the tools with water after use. Hardened materials can be removed mechanically only. Allow the waste to cure. Seal it into a suitable container and bury in landfill.

CLEANING & DISPOSAL

- Do not apply SmartCare Polyurethane HPR if the substrate temperature is $<3^{\circ}\text{C}$ above dew point.
- Do not apply SmartCare Polyurethane HPR if the concrete moisture content is $>6\%$ or if rising moisture (negative pressure) is evident by polyethylene sheet test, or anticipated during service.
- Do not apply SmartCare Polyurethane HPR if the ambient or substrate temperature is $<5^{\circ}\text{C}$, or when ambient relative humidity is $>85\%$.

TECHNICAL DATA

PROPERTIES	VALUES	TEST STANDARDS
Color	white / Grey	-
Form	Viscous liquid	-
Solid content, [%]	60 $\pm$ 3	ASTM D 1644
Elongation, [%]	>600	ASTM D 412-75
Shore 'A' hardness	60-65	ASTM 412-75
Tear Strength	$>28\text{KN/m}$,	ASTMD98-624
Tensile strength, [N/mm ²]	> 1.96	ASTM D 412
Density, [g/cc]	1.15 $\pm$ 0.05	ASTM D 1475
Depth of Water Penetration	Nil @ 5 Bar	BS EN 12390 P8
Depth of Water Penetration	Nil @ 5 Bar	DIN 1048 P5-91
Crack bridging, [mm]	1.5 mm	ASTM C 186
Pull off / Adhesion Strength	$>2.19 \text{ N/mm}^2$	BS 1881 Part 207
Moisture Transmission	0.02	ASTM E 96-66 in gm/HR/m ²
Chloride ion diffusivity	"0" penetration at 90 days	-
Solar reflective index [SRI] [White]	>80	ASTM E 1980
Solar reflectance	>75	EN 410
VOC	$<15 \text{ gm / l}$	ASTM D 3960
Application temperature, [$^{\circ}\text{C}$]	-5 to 45	-
Service temperature, [$^{\circ}\text{C}$]	-10 to 70	-

*All values given are subject to 5-10% tolerance

ADDITIONAL INFORMATION

STORAGE & SHELF LIFE

- Store under cover, out of direct sunlight and protect from extreme temperatures.
- In tropical climate the product must be stored in air - conditioned environment ($<25^{\circ}\text{C}$).
- The shelf life is up to 12 months in unopened conditions if stored as per the recommendations.

HEALTH AND SAFETY INFORMATION

- As with all construction chemicals products caution should always be exercised.
- Protective clothing such as gloves and goggles shall be worn.
- Treat any splashes to the skin or eyes with fresh water immediately.
- Should any of the products be accidentally swallowed, do not induce vomiting, call for medical assistance immediately.

DISCLAIMER

The information supplied in our literature or given by our employees is based upon extensive experience and, together with that supplied by our agents or distributors, is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof