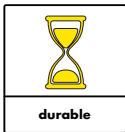


# Polyguard 101

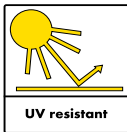
**Acrylic aliphatic protective and anti carbonation coating**  
for reinforced concrete and masonry surfaces

## CHARACTERISTICS

- ▶ Highly durable.
- ▶ Excellent flexural and elastomeric properties.
- ▶ High UV resistance and resistance to long term weathering effects.
- ▶ Available in various colors. Low maintenance cost.
- ▶ Excellent barrier to various chemicals like CO<sub>2</sub>, chloride ions, sulphates, oxygen, water and other aggressive contaminants.
- ▶ Breathable and can allow moisture vapor to escape from the structure.



durable



UV resistant

## DESCRIPTION

Polyguard 101 is an acrylic aliphatic based protective and anti carbonation coating for reinforced concrete and masonry surfaces. It consists of a single component pigmented coating ready for immediate site uses. Polyguard 101 is applied on a silane siloxane penetrative primer which works by penetrating into the pores of concrete, masonry or stone work and reacts with moisture or water vapor that is present thus forming a hydrophobic silane siloxane seal to the capillary pores. This hydrophobic treatment is very effective in reducing the passage of water and water borne salts whilst allowing moisture vapor to dissipate to the atmosphere.

## FIELDS OF APPLICATION

- used as a protective coating for exposed concrete structures such as bridge decks, tunnels, reinforced fill panels, marine and coastal structures from chloride ions, sulphates, carbon dioxide and water.
- used to protect other cementitious and masonry substrates from aggressive marine and coastal environment.

Typical application includes:

- bridged decks.
- concrete precast units
- concrete reservoirs



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- boundary walls
- marine structures

## APPLICATION INSTRUCTIONS

### Surface preparation

The application temperature should be between 5°C to 45°C. Application procedures may vary slightly depending upon site conditions. The general recommended guidelines for the application of the coating system is as follows: The surface must be structurally sound and free of oil, grease, dust and other contaminants which will affect the bonding. Any structural cracks and potholes shall be repaired with a suitable repair mortar from the Polycrete\* range of repair mortars.

### Application

Apply a penetrative primer coat of Polyxane\* to the prepared dry surface. This will impregnate the surface and form an impervious barrier to moisture and other environmental contaminants. For best results apply the primer @ 4-5 m<sup>2</sup>/L/coat. Depending on the porosity and nature of the substrate a second coat is recommended to be given after the first coat has dried off completely. Stir the contents of the Polyguard 101 pail thoroughly before use. The first coat of Polyguard 101 is to be applied on the dry

primer at the rate of 2.5 m<sup>2</sup>/L for 200 microns D.F.T. the coating can be applied with a brush, roller or an airless spray. Apply the second coat at right angles to the first coat at the same rate. The second coat is to be applied only after the first is completely dry.

### Curing

Allow the coating to cure for a period of 7 days to achieve its full properties.

### CLEANING & DISPOSAL

Clean all 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. use licensed waste disposal contractor and consult the local authorities when disposing.

### COVERAGE

Polyxane	4-5 m <sup>2</sup> /L
Polyguard 101	2.5 m <sup>2</sup> /L/ coat for 200μ D.F.T.

### STORAGE AND SHELF LIFE

The pails and drums must be stored in a covered area, away from direct sunlight, UV and other sources of heat. The shelf life of the product is up to 12 months if stored as per recommendations. Excessive exposure to sunlight and UV will result in deterioration of the quality of the product and reduce its shelf life.

### HEALTH & SAFETY

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

### SUPPLY

Polyguard 101	20L pail
Polyxane	20L pail

### TECHNICAL SPECIFICATION

PROPERTIES	VALUES	TEST STANDARDS
Density, [g/cc]	1.15 ± 0.05	ASTM D 1475
Reduction in chloride ion penetration, [%]	≥ 97	-
Water vapor transmission, [g/m <sup>2</sup> /day]	< 13	ASTM E 96
Reduction in water absorption, [%]	≥ 82	-
CO <sub>2</sub> diffusion resistance	Resistant	-
Chloride ion diffusion resistance	Resistant	-
Crack bridging [non cyclic cracks], [mm]	0.6	ASTM C 1305
Adhesion strength, [N/mm <sup>2</sup> ]	≥ 1.5	ASTM D 4541
UV resistance	Excellent	
Application temperature, [°C]	5 to 45	
Service temperature, [°C]	- 5 to 70	

All values given are subject to 5-10% tolerance

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23°C and 50 % relative air humidity at laboratory conditions unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.