

Polyguard 102S

Acrylic aliphatic protective and anti-carbonation coating

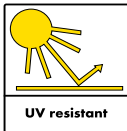
Smooth finished, flexible, one component coating for reinforced concrete and masonry surfaces.

CHARACTERISTICS

- ▶ Highly durable
- ▶ Excellent flexural and elastomeric properties
- ▶ High UV resistance
- ▶ Resistance to long term weathering and water effect
- ▶ Excellent barrier to various chemicals like CO₂, chloride ions, sulphates, oxygen, water and other aggressive contaminants
- ▶ Breathable and can allow moisture vapor to escape from the structure
- ▶ Available in various colors, Low maintenance cost
- ▶ Environment friendly - water based product suitable forenclosed areas



Chemical resistant



UV resistant

DESCRIPTION

Polyguard 102S is a silk/smooth finished, flexible, one component, acrylic aliphatic based protective and anti-carbonation coating for reinforced concrete and masonry surfaces.

FIELDS OF APPLICATION

- used as a protective coating for exposed concrete structures such as bridge decks, tunnels, reservoirs, reinforced fill panels, concrete precast units, marine andcoastal structures.
- used as a protective coating for car park structures
- used to protect exterior surface of cementious and masonry substrates from aggressive marine and coastal environment.
- used for interior surfaces creating special decorative effects

APPLICATION INSTRUCTIONS

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 application of the coating system is as follows:



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Surface preparation

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 repairmortars. To fill pores, blowholes, minor honey combs or as a skim coat, Polyfill AC* shall be used. The surface to be treated should be presaturated with water prior to application. However, any standing water shall be removed prior to application. The temperature of the substrate should be min 10°C and min 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate.

Application

Apply a penetrative primer coat of solvent based acrylic primer(Polyprime AC) to the prepared dry surface. This will impregnate the surface and form an impervious barrier to moisture and other environmental contaminants. 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.

Mixing

Mix the contents of the Polyguard 102S pail thoroughly before use. The first coat of Polyguard 102S is to be

applied on the dry primer. The coating can be applied with a brush, roller or an airless spray. Apply the second coat at right angles to the firstcoat 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

Polyguard 102S 5m² / L / coat for 200μ W.F.T.

STORAGE AND SHELF LIFE

The pails and drums must be stored in a covered area, away from direct sunlight, UV and othersources of heat. The shelf life of the product is upto 12 months if stored as per recommendations. Excessive exposure to sunlight and UV will result indeterioration of the quality of the product andreduce 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. Treatany 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 102S 20L pail
Polyprime AC 20L pail & 200L drum

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.

TECHNICAL SPECIFICATION

PROPERTIES	VALUES	TEST STANDARDS
Color	White/grey [other colours as per requirement]	
Finish	Smooth/silk	
Density, [g/cc]	1.25 ± 0.05	ASTM D 1475
Solids content, [vol%]	43	ASTM D 1644
VOC, [g/l]	< 50	ASTM D 3960
Water resistance	Very good	
Application temperature, [°C]	5 to 45	
Service temperature, [°C]	- 5 to 70	
Drying time touch dry		
recoatable full care	1 hour 7 hours 7 days	
Crack bridging, [mm]	2	EN 14891:2004
CO ₂ diffusion Resistance, equivalent air layer thickness, [R meters]	570	EN 1504-2
CO ₂ diffusion resistance, equivalent thickness of 30n/mm ² concrete cover, [mm]	1400	EN 1504-2
Chloride ion diffusion rate, [ppm/day]	20	DOW
Water Vapor transmission. transmission Rate, [g/(h*m ²)]	2.64	ASTM D 1653
Water vapor diffusion resistance, [sd (m)]	0.4	ASTM D 1653
Elongation, [%]	617	ASTM d 2370
Adhesion Strength, [N/mm ²]	1.7	ASTM D 4541
Tensile strength, [Mpa]	1.3	ASTM D 237
Accelerated weathering in weather-o-meter G156, wom 1000hours elongation after weathering, [%]	365	ASTM D 4798
Tensile strength after weathering, [mpa]	2.7	
Total solar reflectance, [%]	83	ASTM C 1549
Emissivity, [%]	91	ASTM C 1471
Water swell [7 days] [%]	18.95	ASTM 471
Dirt pickup resistance % of y reflectance retained after exposure to dirt, [%]	99.70%	DOW
Fire testing, spread of flame	Class I	ASTM E 84

All values given are subject to 5-10% tolerance

* Refer to website for TDS