

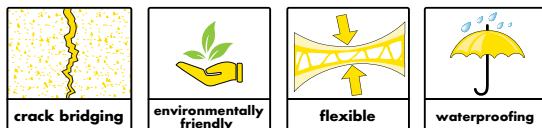
Polyflex ONE

One-component flexible cementitious waterproofing coating

Cementitious coating which cures to form a tough and flexible layer with excellent waterproofing properties.

CHARACTERISTICS

- ▶ One-component product, which only requires the addition of water, providing a faster and easier application
- ▶ Very good crack-bridging ability
- ▶ Environmentally friendly: reduced waste generation
- ▶ Reduced disposal, storage and transportation costs
- ▶ Good flexibility
- ▶ Good adhesion to both porous and non-porous surfaces
- ▶ Good mechanical properties
- ▶ Suitable for light pedestrian traffic areas
- ▶ Excellent durability to long-term weathering effect and UV effect
- ▶ Non-toxic, therefore suitable for use in potable water applications
- ▶ Resistant to carbon dioxide and chloride ion diffusion.



DESCRIPTION

Polyflex ONE is a one-component, cementitious waterproof coating consisting of cementitious binders, fine-grained aggregates and special polymers, which only needs the addition of water. After mixing with water, Polyflex ONE becomes an excellent flexible coating which can be easily applied by roller or brush and it cures to form a tough yet flexible layer, having excellent waterproofing properties and bond with all type of concrete structures.

FIELDS OF APPLICATION

Used as a waterproofing and protective coating for the following structures:

- wet-areas (bathrooms, kitchens, balconies, swimming pools, etc)
- waterproofing of roofs, terraces, domes, lift, inspection pits and spillways
- internal lining for potable water reservoirs and other water retaining structures
- compatible with Treated Sewage Effluent (TSE)



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- protection of exposed concrete structures, such as bridge decks, against carbonation and chloride attack
- Protecting render or concrete with cracks caused by shrinkage, to block penetration of water and aggressive agents in the atmosphere.

APPLICATION INSTRUCTIONS

The application temperature shall be between 5°C and 45°C. Application procedures may vary slightly depending upon site conditions, the general recommended guidelines for the application of the waterproofing coating are as follows:

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 before the application of Polyflex ONE with a suitable repair mortar from the Polycrete range of repair mortars. The surface to be treated should be pre-saturated with water prior to application. However, any standing water shall be removed prior to application.

Mixing

Polyflex ONE can be mixed by mechanical means. Slowly add the 15 kg Polyflex ONE powder to 3.5 – 3.75L (for trowel consistency) or 3.75 – 4.25L (for brush consistency)

of clean gauged water and mix well continuously to produce a homogenous and lump free consistency. Make sure to scrap the walls of the container during mixing to remove settlements. Avoid mixing the product manually.

Application

Polyflex ONE is recommended to be applied in two coats to provide a minimum thickness of 2mm DFT. Each coat shall be applied @1.9 kg/m² which will give a dry film thickness of 1mm. The coating can be applied with a stiff brush or by an airless spray of nozzle size of 3-4mm and a pressure of 6-7 bar. After the application of the first coat and whilst the coating is still wet, embed a glass-fiber mesh (CL 252 or similar) at all corners and joints for added reinforcement. The second coat shall be applied after the first coat dries off completely (6-8 hours @25°C, 50% RM). After completing the application, wait at least 3 days before carrying out water leak test or installing tiles with Henkel Polybit tile adhesives.

PROTECTION

Adequate protection needs to be provided for the coating in the following conditions:

- areas subjected to mechanical abrasion
- flowing water areas

CURING

The coating shall be cured immediately after it dries by wet hessian cloth or mist spraying for a minimum period of 72 hours. The coating will achieve its full mechanical properties in 7 days at standard conditions.

CLEANING

Clean all tools immediately with water after use. Hardened materials can be removed mechanically only.

COVERAGE

1.9 kg per m² per coat for 1mm DFT x 2 coats

STORAGE & SHELF LIFE

Store under cover, out of direct sunlight and protect from extreme temperatures. It is recommended to keep the bags on pallets and not stacked on the floor. The shelf life is up to 12 months when stored as per recommendations and in unopened packaging. Failure to comply with the recommendations will result in premature deterioration of the product and reduce its shelf life.

HEALTH & SAFETY

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, but call for medical assistance immediately.

SUPPLY

Polyflex ONE	15kg Bag
CL 252	100mm x 50m

TECHNICAL SPECIFICATION-SYSTEM

PROPERTIES	VALUES	STANDARD
Colour	Grey / Off white	-
Mixed density, [g/cc]	1.65± 0.05	ASTM D 1475
Pot life, [mins]	45	-
Tensile strength#, [N/mm ²]	>8	ASTM D 412
Elongation, [%]	>35	ASTM D 412
Adhesion strength, [N/mm ²]	>1	ASTM D 4541
Crack bridging, [mm]	>1	ASTM C 1305
Hydrostatic pressure @ 5 bar [50m]	No leakage	BS EN 12390, part 8
Hydrostatic negative pressure @ 3bar [30m]	No leakage	BS EN 12390, part 8
Toxicity	Non-toxic	BS 6920
Abrasion resistance#, [mg]	<50	ASTM D 4060
VOC, [g/L]	<50	ASTM D 3960/D 2369
Drying time @ 25°C, [hours]	6 to 8	-
Full cure, [days]	7	-
Service temperature, [°C]	-5 to 70	-

#Values achieved with 60gsm fiber mesh reinforcement

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.

