

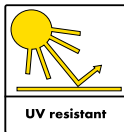
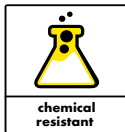
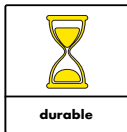
Watertite WA17

Wet area composite waterproofing system

Designed for water holding ponds & structures

CHARACTERISTICS

- ▶ Fast curing time. Quick turnaround time for subsequent site works.
- ▶ Low VOC, Odorless.
- ▶ Tough and durable seamless and monolithic surface.
- ▶ High resistance to abrasion, puncture, impact and thermal shocks.
- ▶ High resistance to chemicals
- ▶ UV Resistant Coating
- ▶ Easy to apply
- ▶ Excellent surface finish with different colors (Topcoat)
- ▶ Non-Toxic



DESCRIPTION

Watertite WA 17 waterproofing system based on combination of Polyurea and Polyurethane technology is designed for such large water body structures which has the capability to provide a watertight system under high hydrostatic or hydrodynamic load conditions.

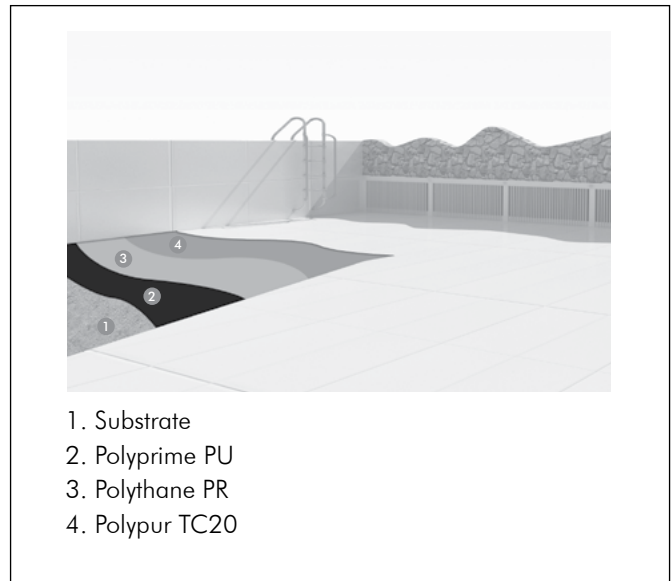
FIELDS OF APPLICATION

- Fountains, Aquariums, Water holding structures

WATERPROOFING SYSTEM

Water holding ponds and structures in water parks and aquariums are underwater areas which are continuously under submerged conditions. The depth of these structures ranges from 1m to 10m. The water exposure of such structures is categorized as High exposure to permanent internal water pressure, indoors and outdoors. The different components of the waterproofing system are as follows:

Polythane PR is a two-component fast curing aromatic polyurea based elastomeric waterproofing coating system for concrete and metal surfaces and polyurethane foams. Free from solvents, the product is a 100% solid low VOC coating, which is applied by a high-pressure spray plural component pump. Polythane PR can be applied in a single or multiple layer in thicknesses ranging from 250 microns to 2.5mm on vertical surfaces without sagging. Polypur TC 20 is a two-component high quality UV stable polyurethane coating. The coating provides a seamless, abrasion resistant floor coating system for both internal and external areas.



TDS_Watertite WA17_GCC_0720

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APPLICATION INSTRUCTIONS OF WATERPROOFING SYSTEM

Surface preparation

Proper substrate preparation is required to be done prior to applying the coating:

Concrete: Clean the surface thoroughly of all contaminants. Suitable blasting method can be used as per the guidelines specified in ASTM D4259 for surface cleaning. Cracks and potholes shall be repaired with a suitable product from the Polycrete, Polypoxy BF/NF concrete repair system.

Priming

Prime the prepared surface with Polyprime PU @ 4-5m²/L and allow it to dry completely before the application of the polyurea coating.

Mixing & Application

Polythane PR application shall be done using a high-pressure plural spray equipment. Technical Specification (Proportioning Unit).

Technical Specification (Proportioning Unit)

Output capacity	>7.5 L/minute
Operating/static pressure	> 2500 psi
Spray pressure at gun	>2300 psi
Primary heating	70°C – 80°C
Hose heating	70°C – 80°C
Volume ratio of mix	1:1
Application temperature of mixture	80°C [to be maintained in machine]
Application pressure	150 – 180 bar

The coating should not be diluted with any solvent under any circumstances. Use Polyfoam Cleaner for purge line and flushing of the spray equipment's prior to application to remove all impurities. Spray the coating as evenly as possible. It can be applied from 250 microns to 2.5mm in multiple passes without any considerable sag on vertical surfaces.

CAUTION

- The coating should not be applied directly on wet or damp substrates.
- Outdoor application should be avoided during extreme climatic conditions.

APPLICATION INSTRUCTIONS OF TOP COAT

Polypur TC 20 shall be applied as the abrasion resistant & UV resistant top coat. This coating is supplied in two pre-weighed packs (resin & hardener). Stir both components separately for a minute to remove any sediments. Slowly add the hardener (B) into the resin (A) and mix thoroughly with a slow speed drill with a proprietary paddle mixer for 2 -3 minutes, until a homogenous consistency is obtained. Work the mixer round the mixing pan to ensure it scrapes the side and bottom of the pail. Once the material is mixed immediately apply the coating with a roller or airless spray at a coverage rate of 5m²/L. If required apply a second coat at the same coverage rate and only after the first coat has dried off completely (24 hours). The coating will achieve its full mechanical properties after 7 days of cure, after which the floor can be subjected to heavy traffic.

COVERAGE

Polyprime PU	4-5 m ² /L
Polythane PR	1 m ² /L for 1000 microns DFT
Polypur TC20	5 m ² /L/coat on smooth surface for 125 microns DFT

STORAGE & SHELF LIFE

Store in a cool, dry place and keep away from all sources of heat and sunlight. In tropical climates, store in air condition rooms. The shelf life is up to 12 months in unopened conditions and if stored as per recommendations.

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 with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

SUPPLY

Polyprime PU	5L kit / 20L kit
Polythane PR part A (ISO)	200L drum part B (resin) 200L drum
Polypur TC 20	5L & 15L kit

TECHNICAL SPECIFICATION WATERPROOFING SYSTEM - POLYTHANE PR

PROPERTIES	VALUES	TEST STANDARDS
Solid content [by wt], [%]	100	-
VOC, [g/l]	Negligible	ASTM D 3960
Shore A hardness	70-80	ASTM D 2240
Shore D hardness	40-50	ASTM D 2240
Tensile strength, [N/mm ²]	> 15	ASTM D 412
Elongation at break, [%]	> 500	ASTM D 412
Modulus @100%, [Mpa]	>10	ASTM D 412
Tear strength, [N]	>50	ASTM D 624
Puncture resistance, [N]	>800	ASTM E 154
Shear adhesion to concrete, [N/mm ²]	>1.5	ASTM D 4541
Crack bridging, [mm]	>3	ASTM C 836
Abrasion resistance, [mg]	20/1000 cycles	ASTM D 4060
Chemical resistance	pH 2.5-11	ASTM D 543
Resistance to chisel impact	No indentation	BD47
Moisture vapor transmission, [g/h/m ²]	<0.06	ASTM E 96
Non toxicity	Passes	BS 6920
Gel time, [seconds]	13	-
Tack free time, [seconds]	30	-
Open to use, [minutes]	60	-
Service temperature, [°C]	-20 to 150	-

TECHNICAL SPECIFICATION - TOP COAT POLYPUR TC 20

PROPERTIES	VALUES	TEST STANDARDS
Color	Grey (other colors available upon request)	-
Density, [g/cc]	1.2±0.05	ASTM D 1475
Solid content, [%]	65±2	ASTM D 2369
Abrasion resistance, [mg]	<50	ASTM D 4060
Touch dry, [hours]	4-5	-
Re-coatable, [hours]	24	-
Full cure, [days]	7	-
Chemical resistance	Dilute acids and alkalis, hydrocarbon fuels, solvents, oil, sea water.	-
Application temperature, [°C]	5 to 35	-
Service temperature, [°C]	-20 to 75	-

All values given are subject to 5-20% variation

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.

