

Watertite WA18

Wet area composite waterproofing system

Designed for food processing areas & industrial kitchens

CHARACTERISTICS

- ▶ Good Abrasion resistant.
- ▶ Excellent chemical resistance.
- ▶ Ease of application. Single component.
- ▶ High elastic recovery.
- ▶ Good tensile strength.
- ▶ Good resistance to water and vapor pressure
- ▶ For ceramic tiles (glazed & terracotta), vitrified tiles, porcelain tiles, mosaic tiles and natural stones like granite, sandstone
- ▶ Easy workability
- ▶ Crack resistance
- ▶ Smooth surface finish
- ▶ Anti fungal/Anti bacterial



DESCRIPTION

Watertite WA 18 composite waterproofing membrane and tile finish system is designed for critical floor and wall surfaces which are subjected to cleaning chemicals followed by high pressure water jet to clean the surface of all traces of chemicals.

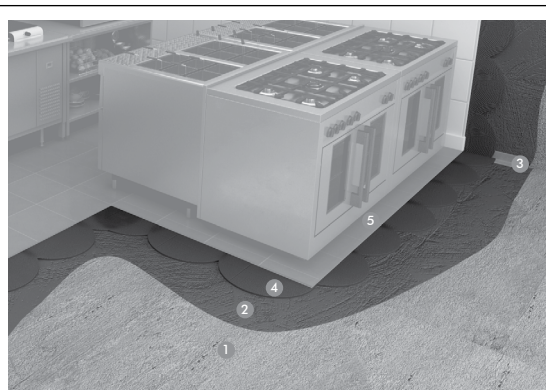
FIELDS OF APPLICATION

- Hotel and heavy-duty kitchen, Food processing areas & laboratories

WATERPROOFING SYSTEM

Industrial kitchens and food processing areas in hospitals and hotels require a high degree of hygiene and clean environment. These kinds of floors are regularly subjected to strong cleaning chemicals to maintain the high level of cleanliness and hygiene to comply with the regulations as laid down by the regulatory authorities. Apart from chemicals these areas are subjected to water which are categorized under high exposure to water without hydrostatic pressure with additional chemical action for indoors.. The different components of the composite waterproofing membrane with tile finish system are as follows:

Polythane 35 is a single component liquid applied elastomeric polyurethane resin based waterproofing & protective coating. It is designed to give a long lasting and superior waterproofing protection to concrete structures for interior applications. All corners, joints, edges, floor drains and other penetrations is sealed with **Polybit CL252** non-woven sealing tape which is embedded onto the 1st coat of the waterproofing coating.



1. Substrate
2. Polythane 35
3. Watertite CL 252
4. Polybit CM 17
5. Polybit CE 47

TILING SYSTEM

Fixing of the ceramic tiles or glass mosaic tiles is done using Polybit CM17 flexible tile adhesive using the thin bed fixing method.

Joint filing of the tiles is done with Polybit CE 47 chemical resistant epoxy resin based joint filling grout.

APPLICATION INSTRUCTIONS OF WATERPROOFING SYSTEM

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:

Surface preparation

Surface preparation plays a vital role in determining the durability of any coating. Therefore, proper care should be taken while executing it. The surface should be free from dust, dirt, curing compound, oil, etc. Clean the surface thoroughly to remove all loosely adhering particles and cement laitance. It is recommended to use a light mechanical grinder for cleaning. Cracks and pot holes should be repaired with a suitable concrete repair system.

Coating

Mix the contents of the Polythane 35 pail thoroughly prior to application and the coating @0.6 lt/m² per coat. Allow it to cure for at least 24 hrs after which the second coat can be applied. The second coat is to be applied at the

same coverage rate. Two coats of Polythane 35 will give a dry film thickness of 1mm. Allow Polythane 35 to cure for at least 24 hrs.

Special Notes

- Do not apply Polythane 35 on wet or damp surfaces. Ensure the moisture content of concrete surface is less than 5%. Provide adequate ventilation when applying in confined spaces.
- Never apply Polythane 35 on porous surfaces such as blocks, cement boards & lean cement/sand screed without the priming coat.
- Polythane 35 is not U.V. stable so it should be covered with a protective screed or tiles as soon as it achieves its final cure.

Cleaning

Tools and equipment should be cleaned immediately with Polysolvent. Hardened materials can be removed mechanically only.

APPLICATION INSTRUCTIONS OF TILING SYSTEM

Substrate preparation

Polybit CM 17 adheres to all solid, load bearing, clean, dry and moist substrates free of substances which may impair adhesion.

- concrete (residual moisture $\leq 2\%$)
 - anhydrite substrates without floor heating (residual moisture below 0.5%) and gypsum (residual moisture below 1%) substrates – mechanically roughened, cleaned from dust and primed with CT 17
 - aerated concrete (free from dust and primed with CT 17)
- Substrates must not be wet. Any existing dirt, loose layers and paint coating with low strength shall be mechanically removed. Absorbent substrates shall be primed with CT 17 and left to dry for at least 2 hours. Surface unevenness of up to 5 mm can be filled on the previous day using Polybit CM 17 mortar.

Application of Polybit CM 17

Pour Polybit CM 17 into the precisely measured amount of clean water (25-29% by weight, 6.25 – 7.25L for 25 kg) and mix with a drill and mixer until a homogenous mass without lumps is reached. Leave for 3 min. and then mix again. Apply the mortar with a suitable notched trowel on the substrate. Size of trowel teeth depends on tile size. For indoor use, the mortar coverage (wetting) on the tile backside must be at least 65%. The floating-buttering method shall be used for larger tiles and for outdoor applications (i.e. additionally a thin layer of the mortar should be spread on the tile's backside, wetting equal or more than 90%). Place the tiles only during the open time of the adhesive. The width of grouts should be the same and should depend on tile size and exposure conditions. Fresh excess mortar can be removed with water; hardened material can only be mechanically removed. Grouting can be done after approx. 12 hours using Polybit grouts. Walkability is reached after 24 hours. Expansion joints, joints at the corners of walls and floor and around sanitary equipment shall be filled with silicone sealant. Work should be carried out in dry conditions at an air and surface temperature from 5°C to 45°C

Application of Polybit CE 47

CE 47 adheres to all solid, load-bearing, clean and dry surfaces free of substances which can cause separation. The surface,

thin-bed mortar or bedding mortar must have set sufficiently hard, and joints must have been uniformly scraped. CE 47 is supplied in two components in either a single container or two separate containers. Add hardener (component B) to the base solution (component A) and mix with an electric drill and mixer attachment at approx. 400-800 rpm until completely free of lumps. It is absolutely necessary to lift off the complete tin lid, using e.g. a screwdriver or trowel, and to scrape the hardener (component B) with a spreader or trowel completely out of the upper into the lower container (component A = resin) where the 2 components are mixed until a homogeneous mixture is obtained. When using only partial amounts, it is necessary to remove them by scraping from the two containers. Afterwards they can be closed again. Ensure a uniform, homogeneous color of the mixture.

Screeding technique

Apply the CE 47 mixture with an epoxy grouting board to the dry and clean ceramic coverings, filling the points completely and without any cavities. Then remove any excess material by skimming it diagonally off the tile surface.

Cleaning

Emulsify any excess CE 47 on the tile surface by making circular movements with a coarse sponge pad and very little water. Wipe off the resulting slurry with a soft sponge (hydro sponge). Then wipe again using a clean, soft sponge and very little water. Frequently rinse the sponge in clean water. Do not begin cleaning the surface before CE 47 has started to set. For final cleaning wait at least 3 but no more than 6 hours to remove the remaining film from the tile surface with a soft sponge. Cleaning is facilitated if approx. 10 % spirit is added to the cleaning water. Warm water also facilitates cleaning.

PLEASE NOTE

Use CE 47 only at surface and air temperatures of 10°C to 40°C. CE 47 contains epoxide compounds. CE 47 in white may discolor (yellow) if exposed to heavy UV Light. Should you need support or advice, please consult our technical service.

STANDARDS

Tested and conforms to C2TES1 Class as per EN 12004, ANSI A118.4, ANSI A118.3

STORAGE & SHELF LIFE

Store in a cool, dry place and keep away from all sources of heat and sunlight. The shelf life is up to 12 months when stored as per recommendations and in unopened conditions.

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

Polythane 35	5L & 20L
Watertite CL 252	100mm x 50m
Polybit CM 17	25 kg paper bag
Polybit CE 47	5Kg Kit

TECHNICAL SPECIFICATION - WATERPROOFING SYSTEM

PROPERTIES	VALUES	TEST STANDARDS
Color	White/Grey (Other colors on request)	-
Mixed density, [g/cc]	1.25±0.03	ASTM D 1475
Solid Content, %	85±5	
Tensile strength, [N/mm ²]	> 3	ASTM D 412
Elongation, [%]	> 500	ASTM D 412
Shore A hardness	30-40	ASTM D 2240
Water Permeability	Nil at 5 bar pressure	BS EN 12390
Chemical Resistance	Dilute acids & alkalis, chlorides, sulphates, bacteria, oil & hydrocarbons	
Crack bridging, [mm]	> 3	ASTM C 836
Low temperature Flexibility, [°C]	-10	
Initial cure @25°C	24 hours	
Full cure, [days]	7	
Application temp, [°C]	+5°C to 40	
Service temp, [°C]	+5°C to 40	

TECHNICAL SPECIFICATION - TILING SYSTEM - POLYBIT CM 17

PROPERTIES	VALUES
Base	Mixture of cements with mineral fillers and modifier
Color	Grey
Bulk density	1.35±0.05 g/cc
Mixing proportion	6.25 – 7.25L of water for 25Kg
Pot life	> 60 minutes
Application temperature	5°C to 45°C
Walkability	approx. 24 hours
Grouting	After 12 hours
Temperature resistant	-30°C to 80°C
Tensile adhesion strength [ANSI 118.4]	- Initial > 1.0 MPa - extended open time (30 mins) >0.5 MPa - after water immersion > 1.0 MPa - after heat ageing > 1.0 MPa - after freeze-thaw cycles > 1.0 MPa
Slip	<0.5mm
Transverse deformation	≥2.5 mm and <5 mm

Amount required;

Tile size	Notch depth	CM 17 [kg/m ²]
up to 10cm	4mm	1.6
up to 15cm	6mm	2.1
up to 25cm	8mm	2.7
up to 30cm	10mm	3.4
Above 30cm	12mm	4.2

TECHNICAL SPECIFICATION - TILING SYSTEM - POLYBIT CE 47

PROPERTIES		VALUES	
Base		Epoxy resin with mineral fillers and additives.	
Fresh mortar density		Approx. 1.6 kg/dm ³	
Mixing ratio		A : B = 3 : 1 parts by weight	
Application temperature		10°C to 40°C	
Application time		Approx. 90 minutes	
Open time		Approx. 90 minutes	
Load-bearing strength		After 24 hours	
Chemical resistance		After 7 days acc. to resistance table 1.40	
Temperature resistance		-30°C to 100°C (dry heat)	
Bond strength [ANSI 118.3]		> 1000 Psi [14days]	
Initial setting time [ANSI 118.3]		4hours	
Linear shrinkage [ANSI 118.3]		< 0.15%	
Tensile adhesion strength		> 15 N/mm ² [7days]	
Tile size in cm	Tile thickness mm	Joint width mm	Amount kg/m ²
5 / 5	5	4	Approx. 1.3
10 / 10	8	4	Approx. 1.0
15 / 15	6	6	Approx. 0.8
10 / 20	6	6	Approx. 0.9
10 / 20	10	8	Approx. 1.9
20 / 20	10	8	Approx. 1.3

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.