Comtech Seal W20

Two part acrylic modified cementitious waterproof coating.

Description:

Comtech Seal W20 is a two component acrylic modified cementitious coating that requires only on site mixing to form the ideal product for protecting concrete structures against water , vapor, ingress of chloride ions, attack s of acidic gases and alkalis.
It cures to form a tough flexible coating having excellent waterproofing properties.
Comtech Seal W20 is a blend of cement, selected fillers, polymers and graded silica sand which is in the powder form.
The liquid contains acrylic co-polymers and wetting agents.

Primary uses:

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

- As waterproof lining for water retaining structures.
- Protection of exposed concrete structures like bridge decks against carbonation and chloride attack.
- Inverted roofs, lift and inspection pits, swimming pools, Spillways.
- As a waterproof coating for roofs and wet areas.
- Backing on marble sand granites to prevent the ingress of moisture.
- As protection for concrete surfaces from carbonation and chloride attack.

Coverage:

1-1.8kg/m² per coat.
Two coats are recommended.

Typical properties:

Color	Grey
Density	1800kg/m³
Toxicity	Non toxic
Water penetration	7 bars No penetration (2mm DFT)
Elongation	> 5%
Initial surface absorbtion	>95% reduction
CO2 diffusion resistance	R>357m Sc>89cm (1mm DFT)
Pot life	45 min
Tensile strength	>8 N/mm²
Adhesion strength	>0.5 N/mm²
Crack bridging	>1mm
Drying time	6-8 hrs
Full cure	7 days
Application tempreture	5 to 45 Cº
Service tempreture	-5 to 70 Cº

Advantages:

- Good flexibility. Thermal co-efficient of expansion similar to that of concrete.
- Nontoxic, there fore suitable for use in potable water applications.
- Good adhesion to both, porous and non porous surfaces.
- Good mechanical properties.
- Suitable for light pedestrian traffic.
- Excellent durability to long term weathering effect and UV.
- Resistant to carbon dioxide and chloride ion diffusion.(Forms a film that provides an anti carbonation coating over concrete. A1mm coating provides anti carbonation cover which is equivalent to over 75cm of concrete).

Middle East Bldg. Chemical Ind. LLC الشرق الأوسط لصناعة كيماويات البناء ذ م م
P.O.Box 47611, Sharjah, UAE, Tel. (9716) 544 18 73, Fax (9716) 544 18 79, info@construction-chem.com
www.construction-chem.com

Method of use:

The application temperature should be between 5°Cto45°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

The surface must be structurally sound and free of oil , grease, dust and other contaminants which will affect the bonding.
Any structural cracks shall be repaired with a suitable repair
mortar.The surface to be treated should be presaturated with water prior to application.
However, any standing water shall be removed prior to application.

Mixing

Comtech Seal W20 is supplied in two pre-measured parts which just requires on site mixing.
Do not mix more material than that can be used within the pot life.
Part mixing can be carried out by mixing 3 parts of powder with 1part of liquid (by weight).
Pour the liquid in to a suitable container and slowly add the powder to the liquid.
Mix the contents using a slow speed drill (300-400rpm) fitted to a proprietary paddle mixer till a homogenous, lump
free and creamy consistency is achieved.

Application

It is recommended to apply Comtech Seal W20 in two coats to Provide a minimum thickness of 2mm for heavily trafficked areas and water retaining structures.
Each coat shall be applied @1-1.8kg/m² which will give a dry film thickness of0.6-1mm.
The coating can be applied with a stiff brush or by an airless spray of nozzle size of 3-4mm and a pressure of 6-7bar.
After the application of the first coat and whilst the coating is still wet, embed a glass fibre mesh at all corners and other joints for added reinforcement.
The second coat shall be applied after the first coat dries off completely (6-8hours@ 25°C, 50%RH).
For general waterproofing and protection against carbonation and alkali attacks, the coating can be applied in 1mm thickness.

Protection:

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

- Areas subjected to mechanical abrasion.
- Flowing water areas.
- A fibre mesh shall be embedded in between two coats for water retaining areas which are >1m in depth.

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 within 7days at 25°C and 50%RH.

Packaging and storage:

Comtech Seal W20 is supplied in supplied in premeasured units of 20kg double pack;
All Comtech products should be stored in a dry shaded area, protected from breakage, deterioration and contamination.

Health and safety:

Comtech Seal W20 does not classified in the hazardous materials; however it should not be allowed to come into prolonged contact with skin and eyes.
The normal safety precautions (hand gloves & safety goggles) are recommended for handling.
The first aid if some harm happened with eyes in to wash with water.