Technical Data Sheet

HYDROCEM DWT

Two Part Flexible Water Proofing for Drinking Water Tanks

Description:

HYDROCEM DWT is a two components acrylic modified cementitious waterproofing mortar. It is composed of high quality binders, Portland cement, silica sand, special hydrophobic agents in powder form (component A) and specially formulated copolymer acrylic agent in liquid form (component B). It is formulated as an internal water proofing treatment for portable water tank. It is non-toxic and easy to apply, with excellent bonding to concrete and masonry.

Applications:

- Drinking water tanks.
- Swimming pools and canals.
- Waterproofing for water features works.
- Protection against brackish water.
- Waterproofing and protection in seawater canals and marine structures.

Advantages:

- Non-toxic, suitable for drinking water.
- Positive pressure applications up to 5 bars.
- Excellent resistance to a range of chemicals.
- Excellent adhesion to substrate.
- Breathable, water vapor preamble.
- Excellent protection against carbon dioxide, chloride ions and water.
- Provides flexible crack bridging up to 2.0 mm.
- Economical and effective product for waterproofing drinking water tanks.
- Easy to apply by brush or spatula.
- Can be used to waterproof against positive and negative pressure.

Instructions for Use:

Surface Preparation:
All surfaces should be sound, clean, dry and free from loose material, efflorescence, laitance, curing compounds, dirt, oil and grease. Ensure that concrete surfaces are sufficiently cured. Remove harsh non-adherent parts by steel brush or by jet water cleaning. In case of deep contamination, concrete surface should be cleaned by mechanical method, such as captive blasting or sand blasting. If the substrate is restricted to access, utilise preparation by handy mechanical tools and wire brush discs.

Damaged concrete surfaces should be repaired using a suitable repair product as recommended by MATEX Technical Department. Create a 45 corner fillet at the wall/floor junctions, using LAVAREP F40. After blasting the surface, check for any cracks. If the cracks are superficial or penetrating the concrete body, then check if the crack is static or dynamic. Consult MATEX Technical Department for the recommended product for crack repair.

Mixing:
HYDROCEM DWT is supplied in a pre-measured two component kit. Pour the liquid component (B) into a clean container and then add slowly the contents of the powder component (A). Mix the two products with a slow speed mixer (200-300 rpm) fitted with a suitable paddle for an interval of 3-5 minutes until a homogenous lump free consistent mix is reached. In case of spray application, contact the Technical Service Department for the right recommended spraying machine.

Application:
HYDROCEM DWT can be applied with a roller, brush or a spraying machine. Wet the surface of application with clean water until a saturated surface dry 'SSD' condition is reached, this allows best adhesion and proper curing of the slurry.

For secured results, it is recommended to apply two coats. Apply the first coat to the surface in a spread rate of 1.70 kg/m². With the same spreading rate, apply the second coat at a right angle of the first coat. A buildup of 3.50 kg/m² will result in a final membrane film thickness of 2.00 mm. Embedding a fiber glass mesh in the system is an option to increase the characteristics of

HYDROCEM DWT

the waterproofing membrane. The mesh should be embedded in the first coat while still wet and fully covered with the second coat to ensure monolithic integrated membrane layer formed without defected spots

For internal waterproofing of water tanks, wet areas and swimming pools, it is recommended to treat the joints and through penetrations with HYDROJOINT TAPE rubber band. Use a brush to apply a strip of HYDROCEM DWT to cover the HYDROJOINT TAPE with 75 mm extra width from both sides of the tape. Make sure that the tape is totally embedded into the wet slurry using a steel trowel. Once the joint treatment is dry, proceed with applying the subsequent coats of HYDROCEM DWT for the entire area.

Standards:

HYDROCEM DWT conforms to:

- BS 6920 Part 1, 2005, BS 1881 Part 5, 1983
- ASTM D412, ASTM E 96

Packaging:

HYDROCEM DWT is available in set of 20 kg powder bag and 8 kg liquid jerkin.

Storage:

Store in original packing in dry conditions away from direct sunlight and high humidity levels.

Coverage:

HYDROCEM DWT achieves coverage of 7.0 square meters per bag @ 2.00mm thickness.

Cleaning:

Clean all tools with water before product hardens.

Shelf Life:

HYDROCEM DWT can be utilized within 12 months of production date if stored in proper conditions in unopened original packing.

TECHNICAL PROPERTIES		
Color	:	Cement Grey or White
Tensile Strength	:	3.00 N / mm²
Resistivity to pressure	:	Positive 2 bars
Recoating Interval	:	4-8 hours
Bond Strength	:	1.20 N / mm²
Density	:	1.55 ± 0.05 g/cm³
Pot-life time after mixing at 25°C	:	40 minutes
Heat Resistance	:	-30°C to +90°C
Elongation at break	:	(without reinforcement) @ 4 mm thickness
Maximum thickness per coat	:	1 mm
pH	:	10 -11 @ 20°C
Service Temp.	:	From –5ºC to +80ºC
Toxicity	:	Non-toxic
Elongation	:	50 %
Vapor Permeability (1.5 mm thick)	:	3.0 Perms
Water vapor co-efficient	:	> 3.65 x 10-4 cm²/s
Water Permeability	:	NIL

Remarks:

- HYDROCEM DWT is a cement product. All precautions for concrete practice must be followed.
- For application in drinking water tanks, wash the applied coat thoroughly with plenty of water while scrubbing the surface with sponge before using the tank.
- During the peak temperature of the day in the summer season, working area should be covered to prevent direct sun effects. Keep mixing tools in shade.

Health and Safety:

- Use goggles and gloves during application. Use only in well ventilated areas.
- Avoid contact with eyes or skin.

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