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TECHNONICOL TECHNOCRETE

A surface treatment system for protecting concrete and masonry

DESCRIPTION:

TECHNONICOL TECHNOCRETE is an acrylic-based polymer modified cementitious flexible composite coating system. TECHNONICOL TECHNOCRETE in conjunction with cement provides properties to combat the shortcomings of plain cement, particularly its poor adhesion properties, low impact strength, low flexural strength, and thin section fragility. TECHNONICOL TECHNOCRETE polymer adds to the potential use as well as enhances the properties of cement slurry, mortar or concrete making it excellent choice for use in new as well as renovation work.

AREA OF APPLICATION:

TECHNONICOL TECHNOCRETE is used for surface treatment, protecting, waterproofing, and repairing concrete and masonry. Waterproofing of basements, wet rooms, terraces, roofs, swimming pools, water towers etc. General concrete repairs. Protection of concrete against corrosion, salt attack etc.

ADVANTAGES:

- Combines a tough, flexible, hard-wearing surface with waterproofing.
- Allows trapped vapor to escape thus preventing peeling and blistering.
- Can be applied in uniform thickness to horizontal and vertical surfaces.
- Develops excellent bonds to most building materials.
- Reduces or prevents salt penetration into concrete.
- Is not affected by ultraviolet light or by chemicals ranging from mild acids to strong alkalies.
- Is highly durable in continuous wet conditions.
- Is non-flammable and does not give off toxic gases when exposed to fire.
- Will not rot or corrode.
- Most properties improve with age.
- Is not harmful to the health of workman.

SURFACE PREPARATION:

- Prior to application of TECHNONICOL TECHNOCRETE, surface must be prepared as mentioned below to avoid failure and to achieve maximum beneficial properties.
- The surface shall be cleaned to remove all dust, foreign matters, loose materials, or any deposits of contamination that could affect the bond between the surface and the TECHNONICOL TECHNOCRETE coating. This can be done by scarifying, grinding, water blasting, sandblasting, and acid washing or by any other approved method.
- New flat surface like sub-base concrete shall be made reasonably smooth so as not to impede the application of TECHNONICOL TECHNOCRETE coating and to avoid sharp projections.
- All concrete surfaces shall be thoroughly pre-wetted prior to the application of TECHNONICOL TECHNOCRETE coating by pouring water on flat surface or by spraying water on vertical and inclined surfaces.
- When placing TECHNONICOL TECHNOCRETE coating, water should be removed so that surface is only damp. In no case, there should be standing water.
- Depressions are to be filled and leveled using TECHNONICOL TECHNOCRETE P fillers. For filler, the mixing ratio is: 1 kg cement, 1.5 kg silica sand, 0.5 kg of TECHNONICOL TECHNOCRETE.

APPLICATION METHOD:

- TECHNONICOL TECHNOCRETE system must be applied with temperature above 10°C and below 40°C.
- TECHNONICOL TECHNOCRETE polymer is mixed with neat fresh cement in the ratio of 1:2 by weight. TECHNONICOL TECHNOCRETE should not be used without the addition of cement.
- The mix must be stirred thoroughly until smooth homogeneous slurry is obtained. Wait for 5-10 minutes to release entrapped air bubbles. Any lump found in the mix should be removed or mixed thoroughly. The mix must be applied by brush on rendered and prepared surface.
- Two or more coats are recommended. The first coat should be allowed to air dry for 5-6 hours prior to applying the subsequent coat.
- After the application of the final coat of TECHNONICOL TECHNOCRETE, initial air drying shall be done for 2-6 hours. During this period no water is to be used for curing. In case of high temperature and low humidity combined with high wind conditions, the coating shall be covered with polythene sheet to avoid rapid drying of the coating. After a maximum period of 6 hours after the final application, moist curing shall be done for the next 24 hours by spraying or sprinkling potable water on TECHNONICOL TECHNOCRETE coating. During this period at no point in time should the TECHNONICOL TECHNOCRETE coating be left completely dry or submerged in water. Following moist curing, the TECHNONICOL TECHNOCRETE coating shall be allowed to air dry for 2 days before submersion in water.

MAIN CHARACTERISTICS:

Properties	Performance	Test method
Appearance	milky white coloured free flowing liquid	visual
Viscosity, sec	12±1	IS 101
Solid content, (w/w)	30±3	IS 101
Parameter of pH, value	>7	IS 9103
14 days bond strength, N/mm^2 (min or concrete failure)	2.0	ASTM C 882-87
28 days compressive strength, N/mm^2 (min)	30	IS 516
Recoating time at 27°C and 65% pH, h	4-6	IS 101
Full cure, days	14	IS 101
Ash content, % (w/w)	<1.0	IS 101
Volatile organic matter (VOC), % (w/w)	<1.0	IS 101

CONSUMPTION: Mix of 2-2.5kg/m^2 shall give the thickness of approximately 1mm. Consumption might vary depending upon the various factors of concrete structure such as finish, porosity, and undulation etc.

STORAGE

Store in dry cool place in the temperature range from 5°C to 30°C in sealed condition. Do not allow it to freeze. Keep away from direct sunlight.

PACKAGING INFORMATION:

HDPE plastic containers of 0.5 kg,1 kg, 5 kg,10 kg, 20 kg, 50 kg, 100 kg and 200 kg.

HEALTH & SAFETY

- As with all construction chemicals products caution should always be exercised.
- TECHNOCRETE is non-toxic.
- Protective clothing such as gloves and goggles shall be worn.
- Treat any splashes to the skin or eyes immediately with fresh water.
- Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.