

# **CICO TAPECRETE P-151**

# A Surface Treatment System for Protecting Concrete & Masonry

CICO TAPECRETE P-151, popularly known as TAPECRETE is an acrylic based Polymer Modified Cementitious Flexible Composite coating system. CICO TAPECRETE P-151 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. CICO TAPECRETE P-151 polymer adds to the potential use as well as enhances the properties of cement slurry/mortar/concrete making them excellent choice for use in new as well as renovation work.

#### **USES**

CICO TAPECRETE P-151 is used for surface treatment, protecting, waterproofing and repairing concrete and masonry. Waterproofing of basements, toilets, terraces, roofs, swimming pools, water towers etc. General concrete repairs. Protection of concrete against corrosion, salt attack etc.

#### **FEATURES**

- Combines a tough, flexible, hard-wearing surface with waterproofing.
- Allows trapped vapour to escape thus preventing peeling and blistering.
- Can be applied in uniform thickness to horizontal and vertical surfaces.
- Develops excellent bond 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 condition.
- 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.

#### **METHOD OF USE**

## **Surface Preparation**

Prior to application of **CICO TAPECRETE P-151**, 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 which could affect the bond between the surface and the CICO TAPECRETE P-151 coating. This can be done by scarifying, grinding, water blasting, sand blasting, 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 CICO TAPECRETE P-151 coating and to avoid sharp projections.
- All concrete surfaces shall be thoroughly pre-wetted prior to the application of CICO TAPECRETE P-151 coating by pouring water on flat surface or by spraying water on vertical/inclined surfaces.

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- When placing CICO TAPECRETE P-151
  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 levelled using CICO TAPECRETE P-151 fillers. For filler, the mixing ratio is 1 kg cement: 1.5 kg silica sand: 0.50 kg of CICO TAPECRETE P-151.

## **Application**

CICO TAPECRETE P-151 polymer is mixed with neat fresh cement in the ratio of 1:2 by weight. The mix has to 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 has to be applied by brush on rendered and/or prepared surface. Two or more coats are recommended. First coat should be allowed to air dry for 5-6 hours prior to apply subsequent coat.

# Curing

After application of final coat of **CICO TAPECRETE P-151**, 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 condition, the coating shall be covered with polythene sheet to avoid rapid drying of the



coating. After maximum period of 6 hours after the final application, moist curing shall be done for the next 24 hours by spraying/sprinkling of potable water on CICO TAPECRETE P-151 COATING. During this period at no point of time should the CICO TAPECRETE P-151 coating be left completely dry or submerged in water. Following moist curing, the CICO TAPECRETE P-151 coating shall be allowed to air dry for 2 days before submersion in water.

#### **PRECAUTIONS**

- CICO TAPECRETE P-151 system must be applied with temperature above 10° C and below 40° C.
- CICO TAPECRETE P-151 should not be used without addition of cement.

#### **STORAGE**

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

# **PACKAGING**

0.5 Kg,1kg,5 Kg,10 Kg,20 Kg, 50 Kg, 100Kg and 200kg HDPE plastic container.

#### **TECHNICAL DATA**

| Parameters                                      | Test Values - Typical                     | Protocol      |
|---|---|---------------|
| Appearance                                      | Milky white coloured free flowing liquid. | Visual        |
| Viscosity, Seconds                              | 12±1                                      | IS 101        |
| Solid content                                   | 30± 3 (w/w)                               | IS 101        |
| pH Value  | >7  | IS 9103       |
| 14 days Bond Strength, N/mm <sup>2</sup>        | 2.0 (Minimum or concrete failure)         | ASTM C 882-87 |
| 28 days Compressive strength, N/mm <sup>2</sup> | 30 (Minimum)                              | IS 516        |
| Recoating Time, at 27°C, 65%<br>RH, HOURS       | 4-6                                       | IS 101        |
| Full Cure                                       | 14 days                                   | IS 101        |
| Ash Content, % (w/w)                            | < 1.0%                                    | IS 101        |
| Volatile organic Matter (VOC) %,                | <1.0                                      | IS 101        |

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# COVERING CAPACITY: TAPECRETE COATING/SLURRY Mix proportion: 2 kg cement: 1 kg TAPECRETE P-151 Polymer

| Material      | One coat on concrete<br>Kg/m² | Two coat on concrete<br>Kg/m² |
|---------------|-------------------------------|-------------------------------|
| Cement        | 0.5                           | 0.750                         |
| P-151 Polymer | 0.25                          | 0.375                         |

#### **TAPECRETE P151 BRUSH TOPPING**

| Material           | Quantities of Material in Kg for One cubic meter | 1 sq.m. of 1.5 thickness |
|--------------------|--|--------------------------|
| Cement             | 860  | 1.30                     |
| P-151 Polymer      | 430  | 0.65                     |
| Fine Silica Sand   | 860  | 1.30                     |
| Total Weight in kg | 2150   | 3.25                     |

#### Important Note:

All CICO products are sold in the market after strict Quality Control in line of ISO 9001 and guaranteed against any manufacturing defect. Although the basic formulation of Company's products generally remains unchanged, production refinements arising from continuing research and evaluation program may occasionally result in marginal changes in properties. CICO aspires to ensure that any recommendation, advice, test data, specification, method statement and other information given in this product datasheet is accurate and best of company's knowledge. Since, the company (CICO TECHNOLOGIES LTD) has no control over the selection of its product, applicators, application methodology, how and where it is applied, therefore, the company cannot accept any liability directly or indirectly arising from the use of its product. It is important to any customer, user or specifier satisfies him / herself that the product is suitable for the intended purpose including health, safety and environmental aspect. Unless or otherwise agreed in writing, all products of the company are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. All customers, users, specifers should ensure that they examine the suitability of the product with company's latest product data sheet.

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