

# CCI NEOCRETE APW

## Acrylic Polymer Waterproof Coating for Concrete, Masonry and Steel

### Description

**CCI Neocrete APW** is a single component acrylic based polymer when blended with cement, forms a composite polymer modified cementitious waterproofing system, when used in conjunction with fibre mesh forms a tough hardwearing surface.

### Uses

- ✓ 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.
- ✓ Provides passivating protection matrix to reinforcing steel

### Advantages

- ✓ Can be applied in uniform thickness to horizontal and vertical surfaces.
- ✓ Develops excellent bond to most building materials and all types of steel substrate.
- ✓ Improves mechanical and physical properties of the coating system when used in conjunction with cement.
- ✓ Reduces or prevents salt penetration into concrete.
- ✓ Resistant to ultraviolet light or by-chemicals ranging from mild acids to strong alkalis.
- ✓ Highly impermeable in continuous wet conditions.
- ✓ Is non-flammable and does not give off toxic gases when exposed to fire.

### Technical Properties

Form	Milky white
Specific gravity	1.03 ± 0.02
Solid content [%]	30 ± 0.02
Mixing Ratio as waterproof coating	1: 2 by weight
Bond strength with concrete	> 1 N/mm <sup>2</sup>
Coverage (Theoretical) as waterproof coating	2 m <sup>2</sup> to 2.5 m <sup>2</sup> /kg in two coats
Slant-Shear bond strength at 7 days, ASTM C882	> 2 N/mm <sup>2</sup> (Concrete failure)

Adhesion to Steel	Excellent
Coverage as polymer mortar, kg/10 mm/m <sup>2</sup>	3 (Mix Ratio – <b>CCI Neocrete APW</b> : Cement: Sand – 1: 2: 6)
Mixing Ratio as repair putty	<b>CCI Neocrete APW</b> : Cement: Fine Sand – 1: 2: 4
Pot life	20 minutes

### Surface Preparation

Prior to application of **CCI Neocrete APW** surface must be prepared as mentioned below to avoid failure and to achieve maximum beneficial properties.

1. 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 **CCI Neocrete APW** coating. This can be done by scarifying, grinding, water blasting, sand blasting, and acid washing or by any other approved method.
2. A new flat surface like sub-base concrete shall be made reasonably smooth so as not to impede the application of **CCI Neocrete APW** coating and to avoid sharp projections.
3. All concrete surfaces shall be thoroughly pre-wetted prior to the application of **CCI Neocrete APW** coating by pouring water on flat surface or by spraying water on vertical/inclined surfaces.
4. When placing coating, water should be removed so that surface is only damp. In no case there should be standing water. All concrete surfaces shall be thoroughly pre-wetted prior to the application of **CCI Neocrete APW** coating by pouring water on flat surfaces or by spraying water on vertical/inclined surfaces.
5. When placing coating, water should be removed so that surface is only damp. In no case there should be standing water.

### Mixing

**CCI Neocrete APW** polymer is mixed with neat cement in the ratio of 100 kg cement: 50 kg of **CCI Neocrete APW**. The mix must be stirred thoroughly until no air bubbles remain in the mix. Any lump found in the mix should be removed.

## Application

**CCI Neocrete APW** polymer is mixed with neat fresh cement in the ratio of 1: 2 by weight. The mix must be stirred thoroughly until smooth homogeneous slurry is obtained. Wait for 5 to 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 to 6 hours prior to applying subsequent coat.

## Curing

After application of final coat of **CCI Neocrete APW**, initial air drying shall be done for 2 to 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 **CCI Neocrete APW** coating. During this period at no point in time should the **CCI Neocrete APW** coating be left completely dry or submerged in water.

Following moist curing, the **CCI Neocrete APW** coating shall be allowed to air dry for 2 days before submersion in water.

### Covering capacity – CCI Neocrete APW coating / Slurry Mix proportion – 2 kg Cement: 1 kg CCI Neocrete APW

Material	One coat on concrete kg/m <sup>2</sup>	Two coats on concrete kg/m <sup>2</sup>
Cement	0.5	0.750
<b>CCI Neocrete APW</b>	0.25	0.375

### CCI Neocrete APW brush topping

Material	Quantities of material in kg/m <sup>3</sup>	1 m <sup>2</sup> of 1.5 thickness
Cement	860	1.3
<b>CCI Neocrete APW</b>	430	0.65
Fine silica sand	860	1.3
Total weight in kg	2150	3.25

## Packaging

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

## Shelf life

If stored in unopened containers at normal ambient temperatures, it has a shelf life of approximately 12 months.

## 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.

## Freezing point

Approximately -2°C.

## Precautions

Not to be stored at high temperatures for long periods. Should be protected from frost. It is Non-toxic and formulated from chemicals which present no fire or health hazards. Spillages should be washed down immediately with water.

## Safety

Before use, refer to the Material Safety Data Sheet (MSDS). The MSDS is available on [www.ccichemicals.in](http://www.ccichemicals.in) or contact us at [info@ccichemicals.in](mailto:info@ccichemicals.in).

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