CCI NEOCRETE 41

Epoxy-based Solvent-free Food Grade Coating

Description

CCI Neocrete 41 is a two-component, solvent-free epoxy resin system, comprising pigmented base and a hardener, specifically formulated to protect concrete and steel. On mixing of the two components, it yields a high build, chemical resistant protective coating, which cures to a semi glossy, ultra-dense surface that is easily cleaned, hygienic and safe for contact with foodstuff and potable water, water canals, etc.

Pack A: Resin, Pack B: Hardener

Domains of Application

CCI Neocrete 41 is recommended as a protective coating for the inside surfaces of tanks, sumps, and walls and as a pore-free surface sealer resistant to the growth of bacteria.

Applications include:

- ✓ Coating drink water reservoirs
- ✓ Chemicals storage tanks
- ✓ Dairies and grain silos, fruit juice holding tanks
- ✓ Pulp and paper plants
- ✓ Meat processing, food industries and breweries
- ✓ Clean rooms in pharmaceutical facilities
- ✓ As a protective coating in oil refineries, paper mills, power stations, garages, hospitals, hangars, etc.

Advantages

- ✓ Can be applied to damp concrete without any loss of adhesion.
- ✓ Becomes an ideal as a body coat in protective coating systems.
- ✓ Suited to quick repair situations like maintenance work.
- ✓ Cured film produced is very hard and abrasion resistant.
- ✓ Excellent bond on freshly prepared concrete surfaces.
- ✓ Can be applied by brush or roller or airless spray machine.
- ✓ Has very good moisture-barrier property.
- ✓ Contains no VOC, hence green technology.

Indicative Characteristics

Appearance of cured film	Greyish or Off-white
Specific gravity at 27°C	1.3 ± 0.1
Solid content, % (w/w)	> 98
Mixing Ratio, Pack A: B (by weight)	4: 1
Pot life, minutes at 27°C, 100 g mass	30 to 45
Application Temperature, °C	5 to 40
Coverage (Theoretical)	6 m^2 to 8 m^2/kg per coat (100 to 130 microns per coat)
Initial cure at 27°C, for pedestrian traffic	After 24 hours
Recoating time	After 12 to 18 hours
Pull-out bond strength at 7 days, N/mm^2	2 (minimum) or concrete failure
Full cure, days	7
Recommended number of coats	2 (minimum)
Open to food traffic	After 24 hours

Note: The typical physical properties given above are derived from testing in a controlled laboratory environment. Results derived from testing fi eld-applied samples may vary, dependent on actual site conditions.

Method of Application

Surface Preparation

It is most important to ensure that thorough surface preparation is undertaken prior to application of the **CCI Neocrete 41** coating.

Ensure the concrete is at least 28 days old and sound. Oil, grease, mould release agent, curing membrane, and such other contaminants must be removed by mild detergent and water, and by thoroughly scrubbing with a soft brush. If the wall surface is damp or water is seeping out, it is necessary to stop the leakage before coating. For advice on the appropriate method for the site situation, contact CCI Technical experts.

It is important to note that the final finish obtained is entirely dependent on the surface finish of the substrate. Where a hygienic surface is critical such as in potable water tanks and food industries, even out all unevenness such as blowholes, pin holes and other surface defects with Epoxy putty before application of coating.

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Temperature Requirements
Substrate temperatures: 15˚C to 35˚C
Material temperatures: 15˚C to 30˚C

Very low or very hot temperatures will make application more difficult and careful consideration should be given to storage of materials. In cold weather conditions, precondition materials by keeping it in a heated room. In hot weather conditions, some form of air-conditioned storage is required. Pre-conditioned materials at 20˚C to 25˚C will reduce the possibilities of flash/slow setting and other defects.

Mixing
CCI Neocrete 41 is supplied in two pre-weighed components, base, and hardener. Properly stir each component separately before mixing to ensure uniform consistency. Combine the hardener and the base component in a suitably sized container. Ensure to scrap the sides of the containers to ensure a complete reaction. Mix properly for 3 minutes with a slow-speed drill and wing style mixing paddle at 300 rpm to 400 rpm until a homogeneous colour is achieved. Keep the paddle below the surface to avoid entrapping air. Do not mix by hand.

Application

CCI Neocrete 41 can be applied using short nap/nylon roller, shorthaired brushes, or airless spray. Apply in two coats, preferably in contrasting colors, each at a wet film thickness of 100 to 130 microns, the second coat applied after the first coat has dried (12 to 18 hours at 30˚C).

Packaging

5 kg kit. Pack A (Resin) – 4 kg, Pack B (Hardener) – 1 kg.

Shelf Life & Storage

12 months from the date of manufacturing when stored in unopened, original sealed and dry condition at a temperature range from +5˚C to 40˚C.

Precautions

- ✓ Store the material at the 5˚C to 40˚C temperature range in a shaded cool place and keep it away from fire and any heated body. Clean all tools with Methyl Ethyl Ketone (MEK) or any standard solvent before polymerization starts.
- ✓ Mix only sufficient materials for immediate requirements. Leave the mixed material to stand for 5 to 8 minutes to enable entrapped air, if any, to escape from the mix and then use as quickly as possible.
- ✓ Thixotropy or anti sagging property is greatly influenced with surface temperature.

Safety

- ✓ Wear hand gloves, safety shoes and safety goggles while using and handling the product.
- ✓ In case eyes or mouth are affected, wash with plenty of clean water and seek medical treatment immediately.

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

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