APCODUR CF 641 CS

PRODUCT DESCRIPTION

Two components, high build, epoxy coating for containment and reactor building

FEATURES AND RECOMMENDED USE

- Radiation resistance coating for internal lining of reactor building innuclear power projects, and equipment/structures installed in containment area
- High performance coating for protection of steel in aggressive conditions
- Self-priming, can be applied directly on steel and concrete
- Good degree of flexibility and elongation
- Good corrosion and chemical resistance
- Low volatile organic content

TECHNICAL DATA

Colour	Silver Grey & Vellum. Other shades on request
Finish	Glossy
Volume Solids	Approx. 90%
Recommended DFT / Coat	75 -150 µm
Theoretical Covering Capacity	12.0 sq.mtr/ ltr @ 75 µm DFT 6.0 sq.mtr/ ltr@ 150 µm DFT
Drying Time at 30ºC	Surface dry : 4 hours Hard dry : 16 hours Full cure : 7 days
Overcoating interval at 30ºC	Min. : 16 hours Max. : 72 hours, provided surface is dry and clean from all contamination

The data given is for guideline only. The physical values are subject to normal manufacturing tolerances, colour and testing variances
The volume solids indicated are as per ASTM D 2697 air drying method
The actual drying time/ overcoat interval may be shorter or longer, depending on film thickness, ventilation, humidity, temperature etc.
The information provided above is at 30°C and 65% relative humidity

DIRECTIONS FOR USE

Surface Preparation

General

- Surfaces must be dry, clean and free from contaminants
- Ensure removal of dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating. Oil and grease should be removed as per SSPC-SP1 solvent cleaning
- Surface should be checked and treated in accordance with ISO 8504 prior to priming

For New Concrete Surface

Ensure that the concrete surface is cured for minimum 3 months. Preferably the surface has to be prepared by light blasting.In case, blasting is not practical, wire brushing/ power tool cleaning has to be adopted to remove laitance and other loose particles, followed by etching thesurface to get a good profile by treating white dilute (10%) hydrochloric acid. Remove acid and contaminants by liberal wash with fresh water. Ensure that acid solution does not retain and penetrate through the joints of the concretesurface. Allow the surface to dry thoroughly before applying primer

For Old Concrete Surface

Remove the surface contaminants like grease, oil etc., by solvent wiping or by 10% caustic solution. Preferably the surface hasto be prepared by light blasting. In case, blasting is not practical, wire brushing/ power tool cleaning has to be adopted to remove laitance and other looseparticles, followed by etching the surface to get a good profile by treating white dilute (10%) hydrochloric acid. Remove acid and contaminants by liberal wash with fresh water. Ensure that acid solution does not retain and penetrate through the joints of the concretesurface. Allow the surface to dry thoroughly before applying primer

For Metal Surface

New hot-rolled stel: Blast cleaned to min Sa 2.5 of Swedish specification

Blast Cleaning

- Steel, abrasive blast clean to min. Sa 2.5 Swedish specification. Incase oxidation has occurred between blasting and application of Apcodur CF 641CS, the surface should be re-blasted
- A blasting profile of (Rz) 50-75 µm is recommended

Note

- Concrete surface should be thoroughly dry before application of primer and has a major influence on the performance
- Apcodur CF 641 CS (with required dilution) is recommended as a primer coat over concrete surface at 50 µm DFT

Application Conditions

- Substrate temperature should be at least 3°C above dew point but not above 50°C
- Relative humidity should be below 85%
- Good ventilation is required in confined areas to ensure proper curing

Mixing

- Apcodur CF 641 CS is supplied in two packs. Stir the base and hardener separately. If settling is observed in the base or hardener, loosen the settled material with the help of hand stirrer followed by power driven stirrer (at lower RPM) for quick homogenous mixing
- Mix hardener gradually into the base under continuous stirring as per the mixing ratio. Once the unit has been mixed, it should be consumed within the working pot life. In case of part mixing (which should be avoided), close the lids of containers tightly to avoid contact with atmospheric moisture
- Thinner should be added after mixing the components and post the induction time. Addition of excessive thinner will lead to reduced sag resistance

Mixing Ratio (by volume)	Base : Hardener 2 : 1
Induction Time	15 minutes
Pot Life at 30°C	2 hours

Application

Air Spray	
Recommended thinner	T 142
Volume of thinner	10 - 20%
Nozzle orifice	0.58 - 0.71 mm (23 – 28Thou)
Nozzle pressure	20 – 24MPa (approx. 200 – 240 atm; 2800 – 3400 p.s.i.)
Recommended thinner	T 142
Airless Spray	
Recommended thinner	T-142
Volume of thinner	10 - 20%

Cleaning

- Do not allow the product to remain in hoses, gun or spray equipment. Clean all equipments immediately after use with Thinner T 142. It is recommended to periodically flush out spray equipment during the course of the working day. The frequency of cleaning will depend on amount sprayed, temperature and time gap
- All surplus material and empty containers should be disposed off in accordance with appropriate regional legisation

Product Characteristics

- Maximum film build in one coat is best attained by airless spray. Air spray (pressure pot) may require a multiple cross spray pattern to achieve optimum film build. By brush application 50-75 µm is achieved in one coat and multiple coats will be required to achieve the total specified thickness
- The maximum performance is achieved after complete curing
- As common to all epoxy, the product will chalks and discolour on exterior exposure. However these phenomenon are not detrimental to anti-corrosive performance

PACK SIZE	20 L (Base: 13.34 L & Hardener: 6.66 L)
STORAGE	**Shelf Life:** At least 12 months at 30ºC for original unopened pack, subject to inspection thereafter Store in a cool, dry place and in accordance with local regulations
REGULATORY INFORMATION	**Flash Point:** Base : Not less than 30ºC Hardener : Not less than 30ºC **VOC:** Approx. 100gm/ ltr (depending on shades) as per USA-EPA Method 24 **Product Weight:** Approx. 1.45 kg/ ltr (depending on shades)

SAFETY INFORMATION

- As a general safety measure, inhalation of solvent vapours or paint mist and contact of liquid paint with skin & eyes, should be avoided. Forced ventilation should be provided when applying paint in confined spaces or stagnant air. Even when ventilation is provided, respiratory, skin and eye protection are always recommended when spraying paint
- Please refer our Material Safety Data Sheet prior to using the product

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