

Florothane CR 250 Aliphatic Gloss Chemical Resistant Urethane Coating

Product Description:

Florothane CR250 provides a textured, glossy, clear or field tintable coating system which is approved for use in military hangars. Florothane CR250 protects concrete floors from the harmful effects of maintenance fluids and is used as a chemical resistant coating over Floropoxy Primer and other Florock systems. Florothane CR 250 may be used clear, or field tintable with Florock 100% colourants.

Typical Uses, Applications:

Ideally suited for facilities that regularly encounter strong chemicals, such as:

- Aircraft hangars
- Maintenance facility floors
- Car & motorcycle dealerships
- Pharmaceutical & healthcare facilities
- Chemical processing plants

Product Advantages:

- Superior resistance to many harmful chemicals, including Skydrol and JP Jet Fuels.
- Resistant to UV and oxidation. It maintains original colour over time and is non-chalking
- Prevents penetration of contaminants that can break down concrete.

Packaging:

7.5 litre kit (when mixed)
Mix ratio 1:1 by volume

Storage:

All containers should be stored at 5° C to 35° C and be kept tightly sealed and out of direct sunlight.

Cured Physical Properties

Property	Test Method	Results
Gloss, 60 Degree	ASTM E97	90+
Sward	ASTM C2134	68
Elongation	ASTM D2370	7%
Abrasion Resistance	ASTM D4060	56.9 mg loss
Tensile Strength	ASTM C2370	38 N/mm ²
Adhesion (5=perfect)	ASTM D3359	5
Accelerated Weathering	ASTM D623	Gloss Loss 12%
Impact Resistance Forward	ASTM G14	2,250 mm kg
Fungus and Algae Resistance	TTP 19 4.3.7	No Effect
Flame Spread	ASTM E84	7.1 Fire Class A
Appearance		Textured

Coverage:

7.4m²/litre (2 coats required)

Surface Preparation:

New concrete must have a 28 day cure, and preferably a broom swept finish, prior to coating. In the case of older concrete flooring, remove all surface oils, paint, dust and debris. Prior to coating, make sure the surface is clean, passes the moisture vapour transmission (MVT) test and the water drop test and that all surface defects have been repaired. Refer to the Florock "Preparation of Concrete" datasheet for more information on preparation and MVT before proceeding.

Florothane CR 250 Application – Applied on smooth bare concrete.

Note: Floropoxy should not be applied when floor temperature is above 32° C or below 13° C, or when within 3° C of the dew point..

Note: In the standard coating system, 2 coats of CR 250 are applied over primer. In the event the primer is not sufficient to cover substrate profile an application of Floropoxy 4805 SL shall be applied in sufficient thickness to restore the profile. Consult your Florock representative for further information.

1. Primer Application:

In a clean, dry container, blend 3 parts by volume of Resin Part A with 1 part by volume of Activator Part B. Mix thoroughly for 3-5 minutes, using a low speed mechanical mixer. Transfer the mixture from the batch container to a transport container. Remix and pour entire mix from the transport container onto floor immediately. Retaining mixture in the bucket will shorten the pot life. Using a flat or 3mm notched squeegee, apply at desired thickness. Backroll with a 10mm nap roller.

Note: Primer should be the same colour as the topcoat. For pigmented topcoat, use clear primer with 100% Florock Colourants. (Blend 1 or 2 litres of colourant into each 15 litre batch of clear primer. It is important to develop good hiding power with the basecoat because only 1 litre of colourant shall be used in each batch of Florothane CR250 topcoat

Note: The cure time will vary with conditions. Allow a minimum of 4 hours and a maximum of 24 hours before next step.

2. Florothane CR250 1st Coat:

In a clean, dry container, blend equal volumes of CR250 parts A and B. Mix well for 3-5 minutes using a low speed mechanical mixer. Do not mix more product than can be applied in 1 hour. (For field tinting blend 0.5 litre of 100% colourant into a 7.5 litre batch. Apply first coat of Florothane CR250 at the rate of approximately 7.4m²/ltr with a solvent resistant, medium nap roller. Allow a minimum of 10 hours and a maximum of 24 hours between coats. If more than 24 hours elapses between coats, consult your local Florock representative for recommendations. **DO NOT SPRAY APPLY THIS MATERIAL.**

Chemical Resistance	
Reagent	Spot Test Results
Skydrol	1
Brake Fluid	1
MEK	1
JP 4 Jet Fuel	1
Ammonia	1
Acetone	1
Sodium Hydroxide	1
Phosphoric Acid 10%	1
Nitric Acid 10%	1
Sodium Chloride 20%	1
Citric Acid 10%	1
Sulfuric Acid 10%	1
Sulfuric Acid 25%	1
Nitric Acid 10%	1
Hydrochloric Acid 10%	1
Acetic Acid 10%	2
Sugar Solution 10%	1
Lactic Acid 10%	1
1-1-1 Trichloroethane	1
Xylene	1
Toluene	1
Mineral Spirits	1
MIBK	5
Tincture of Iodine	2,S
AFFF	1

Rating Scale: Spot Test, ASTM D1308
Pencil Hardness Test, ASTM D3363

- 1 - Excellent. No change in pencil hardness
- 2 - Good. 1-2 units change in pencil hardness
- 3 - Fair. 3 units change in pencil hardness
- 4 - Poor. 4 or more units change in pencil hardness
- 5 - Stains

Note: For optional slip resistant additive, wear spiked shoes and broadcast aluminum oxide into the wet first coat to the desired level of slip resistance. Apply 2-3 kgs per 100m². Use 36, 60 or 80 grit white aluminum oxide.

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3. Florothane CR250 2nd Coat:

Apply the second coat of CR250 in the same manner as the first. Allow coating to cure for a minimum of 24 hours before opening floor to foot traffic and 48 hours before allowing equipment to be moved back in. Allow a full ten days cure for complete chemical resistance.

Traffic Lines & aisleway markings

After the final coat has cured for 24 hours, the traffic lines, etc., may be installed as specified. Suitable tape eg. Frog tape, will be placed on each side of the proposed lines to give a straight edge. Line marking may be achieved by using clear Florothane CR250 and Florock 100% Colourant or by using Florock Floromark line marking kits. Approximately one hour after application, remove the tape. 10 - 12 hours after application, the area may be opened to light traffic.

Instructions for Use over Existing Coatings:

Examine the existing coating to ensure that it is well bonded to the concrete. Any loose coating must be completely removed. Edges should be sanded to a feathered edge.

Clean the entire floor thoroughly with detergent cleaner. The surface must be free of all dirt, oils, or other contaminants.

After the floor has completely dried, sand the existing coating until a powdery residue is evident and all gloss is removed. Sweep

or vacuum clean, finishing with solvent free wipes to ensure good adhesion of the new system.

Liquid Physical Properties		
Property	Test Method	Results
Solids% by Vol/Wt	ASTM D2697	50/56
Viscosity	ASTM D1200	320 cps
SETA Flash Polyol/Acivator	ASTM D3278	101°/45°
V.O.C.gpl,blend	EPA, Method 24	234 gpl

Application Data	CRU 250
Blending Ratio	1:1 by volume
Pot Life	60 minutes
Drying Time @ 21° C @ 50% RH	
Set - to touch	3 1/2 hours
Dry- to recoat	10-12 hours
Maximum Recoat	24 hours
Foot Traffic	24 hours
Full Cure	10 Days
Floor & Air Temp. Limits	13° C - 32° C
Recommended Spread Rate	7.4m ² /ltr per coat
Dft microns @ Spread Rate	75
Recommended Clean-Up Solvent	MEK

Maintenance: Sweep away dust and debris with a broom. Clean on a regular basis with a surfactant type , mild detergent. Florock floors never need to be waxed.

Please read material safety data before using product.

DISCLAIMER:

All statements and recommendations above are based on experience we believe to be reliable. The use or application of these products being beyond the control of the Seller or Manufacturer, neither Seller nor Manufacturer make any warranty, expressed or implied, as to results or hazard from its use. The suitability, risk and liability whatsoever of a product for an intended use shall be solely up to the User.