Opalon® - F45

Polyaspartic Floor Coating

Two-component, 90% volume solids, fast-curing polyaspartic clear topcoat.

PRODUCT DESCRIPTION

Opalon-F45 is a 90% solids elastomeric, clear or coloured polyaspartic that will not yellow, is tough, fast-curing and trafficable. It can be applied directly to prepared concrete or over Aralox epoxy primer or over Opalon-F45 coloured polyaspartic, to produce beautiful, durable floors in either flake finish or solid colours. With good pot-life, fast return to service, high-tensile strength and puncture resistance, it bridges hairline cracks and absorbs subtle movement in the substrate. It is also available in a range of UV stable standard colours suitable for most applications, including a version that increases surface friction. (However Opalon will not prevent yellowing of non-colourfast products such as primers and epoxies underneath)

INTENDED USES

- Restaurants
- Commercial Floors
- Warehouses
- Shopping Centre Flooring
- Showrooms
- Residential Garage Floors

FEATURES

- Low VOC
- Fast cure at ambient temperature
- Resistant to splash and spill chemicals
- High abrasion & Impact resistance
- Good wear resistance
- Convenient 1:1 by volume mix ratio
- Self-Levelling
- High Flexibility
- Full cure down to 5°C

PRODUCT DATA

Volume Solids	90%
Theoretical Coverage	8-11 Square meters / litre at 200 Microns DFT
Finish	Pigmented
Colour	Australian standard (AS2700) + Clear Finish
Gloss	Glossy
Mixing Ratio	1:1 by volume
Hardness	90 (Shore A)
Pot life	20 Min @ 25°C
Cleaner	LM1 Thinner
Flash Point	97°C

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CURE & RECOAT

Substrate Temp	Tacked	Hard Dry	Full Cure Note 1	Minimum Recoat	Maximum Recoat Time Note 2
5°C	24 Hrs	36 Hrs		36 Hrs	12 Days
10°C	12 Hrs	18 Hrs		18 Hrs	6 Days
15°C	8 Hrs	12 Hrs		12 Hrs	4 Days
25°C	4 Hrs	6 Hrs	7-14 Days	7- 12 Hrs	2 Days
40°C	1.5 Hrs	2 Hrs		2 Hrs	1 Day

Note 1: Pull-off adhesion testing is best conducted after 3 Days plus at ambient cure

Note 2: Where the coating is exposed to direct sun and UV, the maximum recoat time will be considerably reduced. Contact Liquimix for advice.

ENGINEERING DATA

Property	Test Method	Result
Dry Heat Resistance		Avoid excessive heat
Abrasion resistance		N/A

POTLIFE

Mixed Product Temperature	Pot Life (Note 1)
10°C	90 min
15°C	60 min
25°C	20 min
40°C	10 min

Note 1: Potlife is dependent on product temperature as well as mix size. When using larger mix sizes, the potlife will be shorter. Keep products cool.

LIMITATIONS

- Gel time and thin-film dry times are heavily dependent on temperature, humidity and film thickness.
- Thick films will take longer to cure. High humidity and temperature will shorten thin-film cure time.
- Mix smaller batches in extreme conditions. Test the gel time and thin-film dry times before commencing a large job. Stop application 5 minutes before the product gels in order to minimise air-bubble entrapment.
- Not to be used as a UV blocker to prevent discolouration of non-colourfast products underneath. The only way to ensure colour-fastness of the product underneath is to use a coloured Opalon.

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SURFACE PREP

Concrete
Solid Colour

The concrete surface preparation must be conducted under the SSPC-SP13/NACE No. 6 surface preparation standard for concrete. This standard covers the preparation of concrete surfaces before the application of protective coating or lining systems.

The concrete should be at least 28 days old. Ensure that the moisture content of the concrete is less than 7% before applying any coatings. A moisture test as outlined in ASTM D4263 can be used to confirm the moisture content.

1. Remove all oil, grease and release agents in the concrete. Ensure that any laitance or other invisible contaminants have been removed. Be especially careful with concrete surfaces that have been in contact with form ply or moulds that may contain release agents. These release agents commonly contain heavy hydrocarbon waxes or silicones that can adversely affect the adhesion.
   Contaminant may also be present below the surface as it may have penetrated the concrete. This can be the case in food processing facilities for example. Depending on the depth of the contaminant this may require solvent and /or hot water high pressure cleaning.
   Prepare the concrete surface to a clean, dry finish through ensuring that the water and air used in the decontamination of the concrete is clean

2. Apply Opalon-F45 directly to the concrete (two coats may be required if the concrete is 'hungry'). If the concrete is damp, oily or poorly prepared, prime it with Civilox-LV100 epoxy before overcoating with Opalon-F45.

Concrete
Chip or Granite

1. Follow above procedure and then broadcast decorative chips onto the final wet coat of Opalon-F45. When dry, remove excess chips with vacuum, blower or broom prior to application of Opalon-F45 Clear topcoat. For a smooth finish, sand the chips prior to application of the clear Opalon-F45 topcoat.

Note 1: In all applications it is important to follow the guidelines outlined in each product's TDS. Each product must be fully cured prior to application of the following coats. (See recoat schedule in table below)

APPLICATION

Equipment

Roller (Preferred):	Suitable
Airless 60:1 Pump:	Tip Range 21-26 Thou (0.53-0.66 mm). Output fluid pressure at spray tip not less than 3000 Psi (210 kg/cm²)
Brush:	Suitable for small areas
Alternative application:	Plural component equipment from Graco that automatically meters and mixes Opalon-F45 such as Graco XM or Graco XP
Temperature of material at gun:	Ambient (20 – 30°C)

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Environment

Relative humidity:	The relative humidity must be less than 85%
Dew point:	The substrate temperature must be at least 3°C higher than the dew point temperature
Substrate Temperature:	The substrate temperature must be a minimum of 5°C

Mixing

Always stir Opalon-F45 (Coloured pigmented) and Opalon-F45 Part B (Clear) in its original container well before use.
Mechanically mix (by volume) 1 Part of Opalon-F45 Part A with 1 Part of Opalon-F45 Part B hardener (2:1). Do not vary from this ratio. Opalon-F45 is supplied in pre-measured containers, make up the entire mix. Do not attempt to part mix. Avoid entrapping air during mixing

Thinning

Thinning of Opalon-F45 is not considered necessary or desirable.

Cleanup

LM1 Thinner may be used for general clean-up of equipment and hoses. To remove cured material from metal parts, soak in Swell. Keep all gun part A side components in soak containers on the left side of the work bench and all part B side components on the right side of the work bench. The use of plastic soak containers with clip on lids and removable baskets makes the job easier. Replace the SWELL regularly as soon as it starts turning cloudy and dirty.

Concrete

Apply one coat of Aralox – FL150 to seal the concrete. For best results apply Aralox – FL150 in the evening when the concrete is cooling down and not outgassing. The Aralox – FL190 can be applied as soon as the Aralox – FL150 has tacked or the following morning when the Aralox – FL150 has cured.

Depending on the quality and porosity of the concrete a second coat of Aralox – FL150 may be required to minimise pin-holing in the subsequent application of Aralox – FL190. Avoid applying too much Aralox – FL150 to the point where it ponds. If this happens spread the excess out with a roller to other areas. It is important to maintain the profile of the concrete. Then apply the Aralox – FL190 with a suitable paint roller or spray using Airless 60:1 single leg equipment or plural spray equipment such as Graco XM or XP.

COMPATIBILITY

Primers	Civilox-LV100 Aralox-FL150
Topcoats	Opalon - F45

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TYPICAL SYSTEM

Substrate	Environment	Substrate Prep	Coat	System	DFT
Concrete	Flooring Light Duty	Diamond Grind	1st Coat 2nd Coat	Aralox – FL150 Opalon - F45	(200µm) 200µm
Concrete	Flooring Heavy Duty	Diamond Grind	1st Coat 2nd Coat 3rd Coat	Aralox – FL150 Opalon - S30 Opalon - F45	(200µm) 200µm 200µm

STORAGE & HANDLING

Store in dry, shaded conditions away from sources of heat and ignition and in properly sealed containers. Protect from heat and frost.
A shelf life of 24 months minimum is typical if stored under ambient conditions at 25°C.

PACK SIZE

8L Kits

10L Kits

40L Kits

HEALTH & SAFETY

Opalon-F45 is for professional use only.
This product should not be used without consulting the Safety Datasheet (SDS) as published on the Liquimix website first.
Observe all health and safety as well as environmental legislation.

DISCLAIMER

The information contained herein is offered without charge and is for use by technically qualified personnel at their own risk. All statements, technical information and recommendations contained herein are based on tests and data which we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and no warranty of any kind is made with respect thereto.

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