

REC COAT FC 673

DUAL COMPONENT MULTI PURPOSE EPOXY RESIN FOR INDUSTRIAL FLOORS

DESCRIPTION

REC COAT FC 673 is a two-component, high solid content, colored epoxy resin, according to a formula developed in according to ISO standard laboratories, used to create self-levelling or multi-layer resin systems for floors having a smooth or slip-resistant finish and an attractive aesthetic aspect.

KEY FEATURES

- Good chemical and abrasion resistance.
- Impermeable to water and common liquids.
- Suitable for car parks, warehouses and industrial areas.
- Suitable for cleanroom flooring applications.
- Hygienic, washable and easy to maintain.
- Resistant to microbial proliferation according to ISO 22196.
- Low VOC emissions.
- Suitable for food-industry applications where the complete flooring system meets the applicable requirements.
- Contributes to sustainable building requirements and LEED credits.
- Complies with EN 13813 requirements for synthetic-resin flooring systems.

PRIMARY APPLICATIONS

REC COAT FC 673 is used to create smooth self-leveling or rough multi-layer resin systems for floors in various sectors, such as:

- Chemical and pharmaceutical facilities.
- Cleanrooms and laboratories.
- Healthcare and aseptic areas.
- Food-processing and packaging facilities.
- Warehouses and workshops.
- Manufacturing facilities.
- Car parks and hangars.
- Offices, showrooms and commercial buildings.

TECHNICAL INFORMATION

PRODUCT IDENTITY		
REC COAT FC 673	Component A	Component B
Color	Colored	Straw Yellow
Consistency	Thick Liquid	liquid
Density	1.53 g/cm ³	1.0 g/cm ³
Viscosity at +23°C	5,500 - 7,000 mPa·s	380 – 480 mPa·s

APPLICATION DATA (at +23°C and 50% R.H.)			
Mixing ratio (A: B)	4: 1		
Consistency of the mix	Viscous		
Density of the mix	1,430 kg/m ³		
Viscosity of mix	1,200-200 mPa·s		
Gel Time (BS 2782-8)	+10°C 60 minutes	+23°C 30 minutes	+35°C 13 minutes
Curing time (ASTM D 5895)	+10°C 15 hours	+23°C 7 hours	+35°C 3.5 hours
Pot life	approx. 25 minutes		
Application temperature	+8°C to +35°C (refers to the surroundings, material and substrate)		
Waiting time between each coat (min/max)	+10°C 35-75 hours	+23°C 18-48 hours	+35°C 10-24 hours

FINAL PERFORMANCE			
	+10°C	+23°C	+35°C
Foot Traffic	48 hours	24 hours	16 hours
Light Traffic	3-4 days	48 hours	24 hours
Normal Traffic/ Chemical Exposure	10 days	7 days	5 days
Complete hardening time at +23°C and 50% R.H.	7 days		
Shore D hardness (DIN 53505) after 7 days at +23°C, 50% R.H.	75		
Taber test after 7 days (at +23°C, 50% R.H., 1000 cycles/1000 g, wheel CS 17)	70 mg		
Compressive strength after 7 days (EN 196-1)	50 N/mm ²		

Flexural strength after 7 days (EN 196-1)	20 N/mm ²
Abrasion resistance (ISO 5470-1)	828 mg

DIRECTIONS FOR USE

PREPARATION OF THE SUBSTRATE

The surface of concrete floors must be dry, clean and sound and have no crumbling or detached areas. The minimum compressive strength of the concrete used for the substrate must be at least 25 N/mm² and its tensile strength must be at least 1.5 N/mm². The substrate must also be strong enough for its final intended use and to withstand the types of loads acting on the floor. The moisture content in the substrate must be maximum 4% and there must be no capillary rising damp.

The surface of the floor must be prepared with suitable mechanical process (e.g. shot-blasting or grinding with a diamond disc) to remove all traces of dirt, cement laitance and crumbling or detached portions and to make the surface slightly rough and absorbent. Before applying the product, thoroughly remove all dust on the surface with a vacuum cleaner.

Any defects present in the surface, such as holes, pitting, cracking, etc., must be repaired, for example, with REC prime, with quartz sand or repair mortar depending on the width and depth of the defects or cracks. To repair highly deteriorated areas and joints, fill large hollows and to create or slightly modify the slope in coned areas, use three- component epoxy mortar.

PRIMING

The primer should be mixed thoroughly with Quartz Sand 0.5, where required, and applied uniformly over the entire prepared surface using a straight-edge trowel or suitable application tool. Immediately after applying the primer, while the surface is still wet, broadcast Quartz Sand 0.5 evenly over the primed area. The required quantity of quartz sand will depend on the type of resin system and the specified surface profile. For further technical assistance, please contact Technical Department of RECKON CHEMICALS PVT Ltd., LAHORE.

PREPARATION OF THE PRODUCT

Mix Component A thoroughly. Add all of Component B. Mix with a low-speed mixer at approximately 300–400 rpm for at least 2 minutes. Add the required quantity of quartz while mixing, where applicable. Avoid excessive mixing to prevent air entrainment. Transfer the mixture to a clean container and mix briefly again. Apply within the specified pot life.

APPLICATION

REC COAT FC 673 can be applied to following systems:

1. Multi-Layer Slip-Resistant System

Apply the prepared primer evenly over the surface using a straight steel trowel. While the primer is still wet, broadcast quartz sand evenly over the entire surface. Allow the primer to harden completely, then remove all loose and excess sand. Lightly sand the surface and clean it thoroughly using a vacuum cleaner. Prepare **REC COAT FC 673** with the required quartz sand and apply the finishing coat evenly using a medium-pile roller or a straight steel trowel. When using a trowel, spread the material evenly and finish by back-rolling with a short-pile roller in a crisscross pattern. Allow the coating to cure properly before putting the floor into service.

2. Multi-Layer Slip-Resistant System – Heavy-Duty Build-Up

Apply the prepared primer evenly over the surface using a straight steel trowel. While the primer is still wet, broadcast quartz sand evenly and generously over the surface. Allow the primer to harden completely, then remove excess sand, lightly sand the surface, and clean it thoroughly with a vacuum cleaner. Prepare **REC COAT FC 673** with the required quartz sand for the intermediate layer, pour the mixture onto the floor, and spread it evenly using a straight steel trowel.

While the intermediate resin layer is still wet, broadcast quartz sand evenly over the entire surface. For areas requiring higher slip resistance, a coarser grade of quartz sand may be used. Allow the intermediate layer to harden completely, then remove excess sand, lightly sand the surface, and thoroughly remove all remaining loose sand using a vacuum cleaner. Prepare **REC COAT FC 673** with the required quartz sand for the finishing coat and apply it evenly using a medium-pile roller or a straight steel trowel. When using a trowel, finish the surface by back-rolling with a short-pile roller in a crisscross pattern. Allow the complete system to cure properly before use.

3. Smooth Self-Leveling System

Apply the prepared primer evenly over the substrate using a straight steel trowel. While the primer is still wet, lightly broadcast quartz sand over the surface. Ensure that all pores and surface openings in the substrate are properly sealed to prevent air from escaping into the self-leveling layer. If open pores remain, apply an additional primer coat and lightly broadcast quartz sand over the wet surface. Allow the primer to harden completely, then remove excess sand and thoroughly vacuum the surface. Prepare **REC COAT FC 673** with the required quartz sand according to the application conditions and desired thickness. Pour the prepared mixture onto the floor and spread it evenly using a suitable notched trowel. While the material is still wet, pass a spiked roller over the surface several times to release trapped air and achieve a smooth and uniform finish. Allow the self-leveling system to cure properly before putting the floor into service.

Floor System	Layer	Material	Consumption (kg/m ²)
Multi-Layer Slip-Resistant System (0.6–1.2 mm)	Base	Primer	0.5–0.7
		Quartz 0.5	0.10–0.14
		Excess Broadcast Quartz	Approx. 3.0
	Finishing	REC COAT FC 673	0.4–0.6
		Quartz 0.25	0.02–0.04
Multi-Layer Slip-Resistant System (3.0–3.5 mm)	Base	Primer	0.5–0.7
		Quartz 0.5	0.10–0.14
		Excess Broadcast Quartz	Approx. 3.0
	Intermediate	REC COAT FC 673	Approx. 0.9
		Quartz 0.5	Approx. 0.34
		Excess Broadcast Quartz	Approx. 3.0
	Finishing	REC COAT FC 673	0.4–0.6
		Quartz 0.25	0.02–0.04
Smooth Self-Leveling System (Approx. 2 mm)	Primer	Primer	0.5–0.7
		Quartz 0.5	0.10–0.14
		Light Quartz Broadcast	Approx. 0.5
	Self-Leveling Layer	REC COAT FC 673	2.0–2.2
		Quartz 0.25	1.0–1.1

NOTE: Actual consumption may vary depending on substrate condition, surface roughness, ambient and substrate temperature, application method, and site conditions. The stated values are indicative and should be verified by site trials where necessary.

PACKAGING

REC FLOOR FC 673 is available in various packaging sizes of a kit and can be supplied on request.

STORAGE

REC FLOOR FC 673 has a shelf life of 12 months when stored in warehouse conditions below 30°C in the original, unopened packs.

HEALTH & SAFETY

As with all construction chemical products, caution should always be exercised. Protective clothing such as gloves and goggles should be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

QUALITY STATEMENT

All our products are manufactured to comply with our internal QA/QC program and quality management system to ensure consistency and quality.

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