

FUTUR-CRETE HDF

SELF-LEVELING POLYURETHANE-CEMENT FLOORING 3 COMPONENTS WITHOUT SOLVENTS

Self-leveling three-component polyurethane cement flooring, solvent-free.

Suitable for very harsh conditions of mechanical, chemical and physical resistance, being an ideal paving system for the food industry due to its exceptional properties, which make it resistant to pressurized steam, disinfectants and other cleaning agents commonly used in the sector.

Indicated as a satin finish for interior floors.

PROPERTIES

Does not contain solvents. No strange smells. Free of emissions into the atmosphere.

Good adhesion to concrete with high mechanical resistance, resistance to abrasion, impacts and chemical agents.

Suitable for indoor applications.

Excellent resistance to extreme temperatures (-40 °C and +90 °C). Breaking temperature 200 °C.

Resistant to water vapor and hot water (+60 to 90°C).

Provides completely waterproof floors, resisting permanent contact with water, hydrolysis and attack by microorganisms.

Compatible for applications on wet surfaces.

Once cured, the floor is non-toxic and is suitable for hygienic material and food floors.

It does not provide flavor or odor in contact with food.

It accepts groundwater level and negative water pressure. It does not accept the presence of water on the surface, this must be retained with injections of hydro-expansive polyurethane resins.

PHYSICAL-CHEMICAL CHARACTERISTICS

Appearance*:	Components A and B		Component C
	Liquids		Solid
Presentation:	Metallic containers		
	24 Kg metal containers		
	CompA:3 Kg	3.65 Kg	Comp.C: 17.35 Kg
	RAL pigmented	Color White	Non-RAL color
Mixing ratio:	Comp. A	Comp. B	Comp. C
	22	2.8	1.3
Chemical nature:	Polyurethane-Cement		
Density at 20 °C*	Comp. A	Comp. B	Comp. C
	1 Kg/L	1.2 Kg/L	1.4 Kg/L
	ASTM D1475, 20 °C		
Viscosity:	Component A	Component B	

	1000 cP	250 cP
	(ASTM D2196-86, at 25 °C)	
Pot Life:	12-15 minutes (25 °C)	
Touch dry:	4-6 hours	
Repainted:	6-48 hours (25 °C)	
Total curing:	28 days	
Support temperature:	> +8 °C, < +25 °C	
Ambient temperature:	> +5 °C, < +30 °C	
Service temperature:	-50 °C, +120 °C	
Relative humidity:	< 85%	
Support humidity:	Accepts humidity	
Hot water resistance:	Thickness 4 mm: 60 °CThickness 6 mm: 70 °CThickness 8-12 mm: 90 °C	
VOC:	0 g/L (Volatile Organic Compounds)	
Compression resistance:	> 60 MPa	
Tensile strength:	9 MPa	
Flexural resistance:	200 MPa	
Wear resistance:	25 µm (UNE-EN 13892-4:2003)	
Adhesion strength:	2.8 N/mm2 (Pull-out test, ASTM D4541)	
Permeability:	0.8 g/m2.h (transpiration to water vapor)	
Water absorption:	< 0.1%	
EN-13813 data: CE marking		
Fire behavior:	F	
Emission of corrosive substances:	SR	
Water vapor permeability:	NPD	
Compression resistance:	C60	
Flexural resistance:	F20	
Wear resistance:	AR0.5	
Adherence:	B2.0	
Acoustic insulation:	NPD	
Acoustic absorption:	NPD	
Thermal resistance:	NPD	
Chemical resistance:	NPD	

* Quality specifications.

MODE OF USE

Before applying the product, check that the support is clean and free of traces of oil, grease, silicone, contaminating waxes or soil materials. If repair is needed, apply appropriate repair mortars.

Apply at room temperature between +5 °C and +25 °C. The temperature of the support must be between +8 °C and 25 °C. The support must be dry and with relative humidity. It is important to control the dew point to prevent condensation from occurring and avoid whitish areas on the coating.

It is necessary to start from a porous concrete support, without grout and free of curing liquids.

Minimum compressive strength of concrete: 15 N/mm².

Minimum tensile strength of concrete: 1 N/mm².

If in doubt, carry out a test before application.

Priming: Prime the support with FUTURPRIMER HC PU.

Finishing: Apply as many layers of FUTURCRETE HDF until the desired thickness is achieved.

Mix component A with C until a homogeneous product is obtained with the help of an electric stirrer (300-400 rpm) for a minimum of 2 minutes. Add component B. Mix for 3-4 minutes. If overmixed, occluded air bubbles may appear. Once the three components are mixed, it is ready for use. The open application time (Pot Life) is 12-15 minutes at 25 °C and Apply with a notched spatula, zero trowel and deaerate with a spiked roller. Apply the product by pouring. Pour continuously to avoid the formation of air pockets until the desired thickness is achieved. Application rate: 8 Kg/m² in 4 mm thick layers. The final consumption will depend on the porosity and roughness of the support. We recommend thicknesses between 4-10 mm. Repainting will be done once the previous layers have dried, approximately 6-24 hours. Do not repaint after 48 hours.

Touch dry: 4-6 hours. Pedestrian traffic: 24 hours

Light traffic: 2 days. Heavy traffic and chemical resistance: 3 days. Total curing: 7 days.

Data at ambient temperature of +25 °C and 55% relative humidity.

It is not recommended to dilute the product, ready-to-use product. If greater workability is desired, add a smaller amount of component C. For non-slip finishes, corundum must be added to the product in a proportion between 0.1-0.4 Kg/m².

Maintenance and cleaning: To maintain the appearance of the floor after application, all spills must be removed immediately after they have occurred. The floor must be cleaned regularly using rotating brushes, high-pressure cleaners, vacuum cleaners, using neutral detergents and appropriate waxes. Once the container is opened, we recommend its complete consumption. Once the two components have been mixed, the mixture obtained must be applied, respecting the pot-life. Stable for 12 months from its manufacturing date, in its original, well-closed and undamaged container. Store in a dry and cool place at temperatures between +5°C and +25°C. Application in closed areas must be carried out ensuring proper ventilation during application and 48 hours after. Do not exceed the maximum consumption because it may affect its adhesion and durability.

Avoid the formation of puddles of the product.

In applications exposed to U.V. rays. yellowing may occur. It is recommended to protect with a finishing coat of water-based paints. For applications with chemical resistance, consult the technical department. Incorrect treatment of cracks and singular points can lead to a reduction in the useful life of the pavement.

To clean materials and utensils, use FUTURSOLVENT 001 before the product hardens. Once the product has hardened it can only be removed by mechanical means.

APPLICATIONS

Very useful in all types of construction companies, quick repair contracts, masonry in general, community maintenance, repair and restoration of buildings, industrial flooring, etc.

Application as:

Treatment, decoration and protection of pavements, floors and rehabilitation of: Industrial Floors, Food Floors, Chemical resistance floors, floors resistant to vehicle traffic (light traffic), industrial warehouses, warehouses, Shopping Centers, Cold Rooms, etc.

Dust and anti-wear protection of concrete.

Compatible with concrete floors, mortar, mosaics, ceramics, tiles, etc.

Floor covering in poorly ventilated areas.

The information and recommendations we provide are based on our Research and experience and we believe they are correct. Since the application of the products by our Clients is beyond our control, we cannot assume responsibilities arising from misuse of our products.