

HYPERCRETE HDF

POLYURETHANE CONCRETE FLOORING SYSTEM

HYPERCRETE HDF is a three component self-leveling material, based on polyurethane resins and non-organic fillers. The product is solvent free.

USE

HYPERCRETE HDF is designed for industrial floors and protection coverings in the field of the food and beverage industry, chemical industry, pharmacy, healthcare area, electronics, mechanical engineering, metallurgy, etc. HYPERCRETE HDF is recommended for conditions requiring the maximum mechanical, physical and chemical resistance. For anti-static, non-sparking, anti-slip, anti-bacterial, non-dust and decorative coatings. For waterproofing and protection of terraces, roofs and balconies. HYPERCRETE HDF is a non-toxic product in case of contact with food products and drinking water. Can be used indoors and outdoors.

FEATURES AND BENEFITS

Excellent adhesion to all construction materials.
Sound, monolithic, wear resistance coating.
Resistant to wide range of temperature, non-combustible.
Warm water resistance (60OC – 90OC).
Excellent biological and chemical resistance.
Application at low temperature (-5OC).
Can be applied to humid base.
Solvent free.
Can be applied in areas with no good ventilation.
Nontoxic, hygienic material.
Does not change taste of the food.
Negative hydrostatical resistance.

SURFACE PREPARATION

Substrate must be dry, chemically neutral, smooth with no cracks and pores, sound and clean - free from dust, rust or crumbling particles. All traces of contamination, such as oil, fats, chemicals should be removed by detergents. Cleaning with a heavy flow of water or blasting is recommended - working pressure 150 bar (minimum 20 l/min). All roughness should be removed by grinding, cutting or blasting. All cracks, holes and pores should be sealed with suitable materials. Aggressive chemical methods for substrate treatment are not recommended. The substrate should be treated with primer.

Poor quality or contaminated substrates can not be made satisfactory by priming.

MIXING

Mix HYPERCRETE HDF part C (powder), HYPERCRETE HDF part A (white liquid) and HYPERCRETE HDF part B (brown liquid). Blend parts for 3-4 minutes until the liquid becomes homogeneous. Use spiral (\varnothing 120 – 140 mm) slow-speed mixer (150 – 200 rpm.) The consistence must be spread up to a recommended thickness – 4 - 10 mm as soon as the mixing. Use steel trowel to smooth the new coating. Use airing roll to free the closed gases.

CLEANING

The tools should be cleaned with Solvent 01 or xylene.

HEALTH AND SAFETY

Use in well ventilated areas.

CONDITIONS FOR COVERING

Industrial floors:

Type of substrate:	concrete, polymer-modified cement coating, metal, etc.
Levelness of the base:	smoothed, ground, milled;
Roughness	<2mm
Strenght of the base:	$R_{28} = 25\text{MPa}$; (min. 15 MPa)
Base humidity:	$W < 10\%$
Air humidity:	$W < 85\%$
Working temperature / $t_{\text{air}}, t_{\text{base}}$:	$5 \div 25^\circ\text{C}$, but not lower than 3°C above the point of the condensation

CONSUMPTION

Thickness 4 mm

Approx. 8 kg/m²

TECHNICAL DATA

Packiging:	Plastic pail, net 20 kg	
Colours:	Beige RAL 1014, Grey RAL 7010, green RAL 5017, red RAL 3003, blue, ochre RAL 1024	
Storage:	6 month (5-30° C, dry and well ventilated areas)	
Density (20°C):	2000 kg/m ³	
Compression strength:	>60 MPa	
Tensile strength:	9 MPa	
Flexural strength:	20 MPa	100% concrete failure
Adhesion to concrete:	2,8 Mpa	
Water absorption:	>0,1%	
Temperature resistance:	-50 to 120°C	
Hot water resistance:		
Floor thickness 4 mm	60 °C	
6 mm	70 °C	
8-12 mm	>90 °C	
Pot life (20 °C):	12 -15 min	
Time for polymerisation:	8 h	
Traffic:	24 h	
Heavy traffic and chemical resistance:	72 h	
Full polymerisation:	28 days	