

Kemfloor HF

Non-metallic, Monolithic Floor for Fresh Concrete Surface Hardener

Description	Kemfloor HF is a heavy-duty hardener that produces dense, hard surfaces on horizontal concrete in pedestrian and vehicular traffic areas. Kemfloor HF is a blended powder, which is ready to use on-site. It consists of special hardwearing aggregates, which have been selected for their excellent abrasion and water resistance, and special additives and other chemicals, improves its workability and makes it easy to trowel into the surface of fresh wet concrete.		
Where to use	Kemfloor HF Provides a high abrasion resistant surface to concrete floors by the dry shake method that ensures that the hardwearing surface bonds monolithically to the base concrete Kemfloor HF Provides one of the hardest wearing, impact resistant non-dusting floor surfaces in the following locations: • Factories and workshops • Food processing plants • Gas stations • Parking areas, garages, service stations, etc.		
Advantages	Kemfloor HF provides the following advantages: • High impact resistant • Forms monolithic bond with fresh concrete base • Non-stain and non-dusting • Slip resistant • Abrasion and impact resistant surface • Reduces maintenance costs • Reduces dusting penetration of aggressive liquids • Economic ready to use packing • Hard, dense surface, resistant to oils and grease		
Properties			
Compressive Strength	According to (BS 1881 PT4, 1970 clause 2 and ASTM C 109) at water contents equivalent to those obtained in practical applications, the typical 28-day compressive strength of Kemfloor HF cubes is 35 - 40 N/mm ²		
Abrasion resistance	Control: 372.2 mg Loss Kemfloor HF : 176.6 mg Loss	Improvement by >200%	CS17 Cycles 1000g ASTM D4060
Pull off to concrete	The mean value is 1.7 N/mm ²	ASTM D4541	
Water Absorption	The mean percentage is 9%	ASTM C413	
Colors	Kemfloor HF is available in standard colors, Grey, Green, Beige and Red...etc.		
Surface Preparation	• The base concrete should have a minimum cement content of 300 Kg/m³ • The concrete mix should be designed to minimize segregation and bleeding • Free water cement ratios of less than 0.5 are required • The concrete should have a slump of between 75 and 100 mm		
Expansion Joints	• Shall be installed in accordance with local building codes • Never bridge an expansion, contraction, or construction joint		

Application	• Kemfloor HF is applied at different rates to provide floor surfaces suitable for different types of industrial use (see coverage). • It is recommended to divide the floor into zones of a known area • Sufficient material should then be laid out to meet the required spread rates • Kemfloor HF has two stages of application and can begin when the base concrete has stiffened to the point when light foot traffic leaves an imprint of about 3 mm Stage I: • Half of the Kemfloor HF dosage is evenly spread over the concrete surface • When the material becomes uniformly dark by the absorption of moisture from the concrete, it can be floated with wooden floats, or on large areas the disc of a power float may be used • It is important however, that the surface is not overworked Stage II: • Immediately after floating, the remaining Kemfloor HF dosage is spread evenly over the surface • Again, moisture is absorbed and the surface can be floated in the same way as before • Final finishing of the floor using the blades of a power float can be carried out when the floor has sufficiently stiffened
Precaution	• Timing of the application of Kemfloor HF is important, early excess water will be absorbed and the resistant floor surface will be of lower strength and subjected to dusting • Also, the dense aggregate could sink and be available to completely hydrate resulting in crazing and pitting of the surfaces is likely to result • Zone edges are likely to suffer particularly from the heavy impact of wear; these can be given additional protection immediately after the base concrete is leveled by scattering Kemfloor HF on a strip 100-150 mm wide along the zone edges and steel trowel it into the surface • Areas, where saw-cut transverse control joints are located, can also be penetrated in this manner • Proper curing of concrete is essential to ensure the physical properties of the floor • Kemfloor HF is supplied and ready to use on site never add cement or aggregate
Theoretical coverage	The coverage of Kemfloor HF depends on the end use of the floor. Application rate should comply with coverage recommended for that use to give the following yields: Light Traffic: 3 Kg/m² Moderate Traffic: 5 Kg/m² Heavy Traffic: 7 Kg/m²
Packaging	30 Kg Sack
Shelf life & Storage	Kemfloor HF has a shelf life of 12 months in recommended conditions
Health and Safety	• Use goggles, gloves, and a breathing mask when applying • Apply forced ventilation in confined spaces • Remove splashes from the skin with a hand cleaner or soap and water • Eye splashes are to be washed with plenty of water • If ingested seek medical advice
Additional Information	PROKEM provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structure PROKEM designs tailor made products should there be critical application that requires specific properties rather than our main range. For our customer's satisfaction PROKEM reserves the right to change the properties of its products All orders are accepted subject to our current term of sale & delivery Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request PROKEM extends technical services to include after sales support to assist users in a proper handling of our product