

KEM FLOOR HT

Non Metallic Floor Hardener

Ref. FL/FH-V1-0112

Description

KEM Floor HT is a ready to use non-metallic floor hardener based on very high quality natural hard non-metallic aggregates. These aggregates play an important role in attributing properties of abrasion and wear resistance. It renders tough, wear resistant, dust free, anti-skid, long lasting and maintenance free floors. It bonds monolithically to the base concrete and is suitable for existing as well as new floors.

Uses

- All surfaces that are subjected to heavy wear, tear and impact
- Provides high abrasion resistant surface, hence useful for shop floors, warehouses, etc.
- Heavy traffic areas viz, loading bays and rafts
- Car parking areas, garages and trucking lanes, container terminals, etc.
- Hard toppings for all indoor and outdoor floors installations
- Power plants metallurgical industries, automobile industry, etc.
- Exhibition halls, stadiums, railway platforms, etc.

Advantages

- Hardwearing and dustproof floor toppings.
- Anti-skid and anti-slip in case of oil spillages.
- Good water proofing properties, hence suitable for rooms and exteriors that are constantly wet.
- Non-rusting and therefore trouble free
- Resistant to petrol, diesel and vegetable oils.
- Abrasion resistant is twice as good as normal concrete.
- Increases strength and impact resistant.
- Suitable for old floors, new floors and repairs. Substantial increase in service life and therefore works out economical. Has extremely low shrinkage.
- Extremely high abrasion resistance.
- At water contents obtained in practical applications it will achieve a very high compressive strength.

Typical Properties

Appearance: Cementitious grey powder

Density (Kg/M3): 2200

PH of Mix: 8-12

Application temp.: +5°C to +35°C

Hardness : 7 on Mohs' scale

Bond Strength on Concrete : 2 N/mm²

Water permeability : Impermeable (penetration depth <5mm).

KEM Floor HT when tested at a water powder ratio of 0.10 typically yields the following typical values:

Age (Days)	Compressive Strength as per ASTM C 109 (N/mm ²)
1	40
7	70
28	85

Age (Days)	Flexural Strength (N/mm ²)
1	6
28	8

Standards

KEM Floor HT is comply ASTM C 109.

Direction for use

KEM Floor HT can be applied on both old as well as new floors. In both cases, proper joints should be made as per standard norms.

Guidelines for Application on Existing Concrete Floors: To ensure proper bonding of the compensating layer, the base concrete should be clean and free from oils and other contaminants. Wet the existing surface for 24 hours prior to placing the compensating layer. Remove all surface water. Apply the slurry coat to the base concrete consisting of a mixture of cement fine sand (1:2) prepared with KEM Floor HT admixed with water



(KEM Floor HT: Water = 1:3). Then apply the compensating layer about 30 mm thick consisting of cement aggregates (50%- below 10 mm and 50% below 4.75 mm) in the ratio of 1:3. Cement content should be at least 400 kgs/m³ and water/cement ratio of about 0.45. This layer should be well compacted.

Guidelines for Application on Newly Cast Floor: In case of newly cast floor, the base concrete should have minimum cement content of 300 kg/m³ and that cement should have been placed in accordance with good concrete practices. The bleeding water should have evaporated before sprinkling KEM Floor HT during initial set.

Note: The time between casting of concrete and KEM Floor HT broadcasting will depend upon the ambient temperature.

Using KEM Floor HT: KEM Floor HT dry mix is sprinkled right during the initial set. It is usually applied in two stages. The concrete / compensating under screed base should be free from bleed water and sufficiently hardened to allow light foot traffic. First, using hands or scoop, sprinkle about two-thirds or 65-70% of the dry mix on the floor. Once the material becomes evenly dark by absorption of the surface water, it is floated by wooden float, but the surface should not be over worked. Immediately thereafter, the remaining one-third or 30-35 % of the dry mix should be evenly sprinkled in a similar manner but at right angles to the first application. This mix too should be spread evenly. For final finishing, trowel with power-float of weight not less than 60 kgs. Attention should be paid to bay edges and corners to ensure full compaction. Final towed floor surfaces should be cured with KEM Crude Aid 10W or conventional curing methods.

Coverage

Light Traffic : 3 - 3.5 kg/sq.m

Medium Traffic: 4 - 5 kg/sq.m

Heavy Traffic : 6 - 7 kg/sq.m

Packaging

25 kg & 50 kg

Storage and Shelf life

Store in a cool and dry place away from moisture and direct sunlight.

Close opened bags immediately after use.

Shelf life is 6 months from manufacture in original unopened bags stored in dry conditions.

Technical Service

Chembond has established itself in various fields on the basis of its dependable technical service. For this purpose, we maintain a well equipped laboratory for research & quality assurance of all products. Our experienced personnel are always on call and would always be available for product demonstrations and product performance monitoring.

Safety precautions

KEM Floor HT is a cementitious alkaline product. Care should be taken to avoid contact with eyes, skin and mouth and food stuffs. Any splashes on the human body must be washed with plenty of water.

Note

All Chembond Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue. Field services where provided, does not constitute supervisory responsibility.

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