

CHEMFIT HARDTOP METAL 1210

Colored, One Part Metallic Dry Shake Floor Hardener Containing Hard Metallic Ferro Silicon Aggregates – For Heavy Duty Warehouses, Transport Terminals, Power Stations & Distribution Centers

PRODUCT DESCRIPTION

ChemFit HardTop Metal 1210 is a colored, one part, preblended metallic dry shake floor hardener containing hard metallic ferro silicon aggregates. When applied to fresh concrete, it creates an extremely hard, dense, highly abrasion-resistant, and impact-resistant floor surface with exceptional durability. The ferro silicon aggregates provide superior wear resistance for heavy duty industrial environments, significantly extending floor service life and reducing maintenance costs. The metallic hardener forms an integral, monolithic bond with the base concrete, eliminating the risk of delamination.

PRIMARY APPLICATIONS

ChemFit HardTop Metal 1210 is recommended for use in conditions such as:

- Heavy duty warehouses and distribution centers
- Transport terminals, loading bays, and truck depots
- Power stations and energy facilities
- Heavy manufacturing plants and foundries
- Steel mills and metal processing facilities
- Automotive assembly plants
- Airports, aircraft hangars, and cargo terminals
- Industrial storage facilities with heavy forklift traffic
- Heavy machinery assembly and maintenance areas

KEY FEATURES AND BENEFITS

- **One part, preblended** – Ready to use; consistent quality
- **Extremely hard wearing** – Superior abrasion and impact resistance for heavy traffic
- **Ferro silicon aggregates** – High hardness and durability for extreme conditions
- **Dust proof** – Eliminates dusting and surface deterioration
- **Colored finish** – Range of colored options available
- **Monolithic bond** – Forms integral bond with base concrete; no delamination
- **Chemical resistant** – Resists oils, greases, fuels, and mild chemicals
- **High impact resistance** – Withstands heavy point loads and impact

PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	Free-flowing powder
Color	Range of colored options available
Basis	Cement, aggregates, admixtures, pigments
Aggregate Hardness	8 – 9 on Mohs scale
Layer Thickness	2.5 – 3.0 mm at 7.0 kg/m ²
Compressive Strength	≥ 80 N/mm ² at 28 days
Abrasion Resistance (28 days)	< 50 mg weight loss (Taber test)
Abrasion Resistance (EN 13813)	Class AR6 (highest classification)
Flexural Strength	> 8 N/mm ²
Bond Strength	> 2 N/mm ² (substrate failure)
Application Temperature	+5°C to +35°C
Substrate Temperature	+5°C to +35°C

PACKAGING AND STORAGE

Packaging:

- 25 kg bags with moisture barrier

Storage:

- Store in original sealed bags in a cool, dry location between +2°C and +35°C
- Protect from moisture, humidity, and direct sunlight
- Stack pallets off the ground on wooden pallets
- Keep bags intact and sealed until ready for use

Shelf life: 12 months from date of manufacture when stored properly

DOSAGE AND COVERAGE RATES

The recommended application rate is **7 kg per square meter**, achieving a layer thickness of approximately **2.5 – 3.0 mm**.

Traffic Level	Application Rate	Layer Thickness
Heavy duty (standard)	7 kg/m ²	2.5 – 3.0 mm
Severe duty (extreme conditions)	8 – 10 kg/m ²	3.0 – 4.0 mm

Yield per 25 kg bag:

- At 7 kg/m²: Approximately 3.5 – 3.6 m² per bag
- At 8 kg/m²: Approximately 3.1 m² per bag
- At 10 kg/m²: Approximately 2.5 m² per bag

NOTE: Coverage is approximate; varies with concrete bleed water, substrate profile, and application technique. Minimum recommended application rate is 7 kg/m² for heavy duty performance.

APPLICATION GUIDELINES

Surface Preparation:

- Concrete must be fresh, high quality, with minimum compressive strength 30 N/mm² at 28 days
- Concrete mix must have low water/cement ratio; air-entrained concrete is not suitable
- Slump should be 75 – 110 mm
- Concrete surface must be leveled and free of bleed water before application

Timing of Application:

- Concrete must have stiffened sufficiently – footprint of thumb pressure should be 3-5 mm deep
- Bleed water must have completely evaporated

Application Method:

- **First application:** Sprinkle approximately 4 kg/m² evenly onto concrete surface
- Wait until material darkens from moisture absorption (2-5 minutes)
- Float using wooden trowel or power float; do not over-work
- **Second application:** Sprinkle remaining 3 kg/m² (or total required) evenly
- Wait until moisture is absorbed; float as first application
- **Final finishing:** Use power trowel with blades when floor has stiffened sufficiently

Important Notes:

- Do not add water during finishing – this softens the surface and reduces abrasion resistance
- For large areas, divide into bays to maintain workable edges
- Apply in two layers for best results and uniform color
- Metallic hardeners require more aggressive finishing than quartz hardeners

Curing:

- Immediately after final finishing, apply curing compound or cover with plastic sheeting
- Light foot traffic: approximately 12-16 hours after application
- Light wheeled traffic: 3 days after application
- Full service load: 7-14 days after application
- Maintain curing for minimum 7 days for optimal strength development

HEALTH AND SAFETY

ChemFit HardTop Metal 1210 is alkaline and may cause severe eye and skin irritation. In fresh, wet state, the product is caustic. If eye contact occurs, rinse immediately with plenty of water for 15-20 minutes and seek medical attention. For skin contact, wash immediately with soap and water; remove contaminated clothing. If swallowed, do not induce vomiting; rinse mouth and drink water, then seek medical attention. Use gloves, safety glasses, and protective clothing during handling. Avoid inhalation of dust – use dust mask if ventilation is poor. Refer to the Safety Data Sheet for detailed information.

CLEAING OF TOOLS

Clean all mixing equipment, trowels, and spillages with water immediately after use. Dried material requires mechanical removal.

APPROVALS AND STANDARDS

ChemFit HardTop Metal 1210 complies with the following standards:

- **EN 13813** – Screed material and floor coatings (Class CT-C50-F7-AR6)
- **Colored**, one part metallic dry shake floor hardener containing ferro silicon aggregates
- Suitable for heavy duty warehouses, transport terminals, power stations, and distribution centers
- Highest classification for **abrasion resistance (AR6)**

LEGAL NOTES

All technical data provided in this Product Data Sheet is based on laboratory testing under controlled conditions. Actual field performance may vary due to differences in substrates, application methods, site conditions, and environmental factors. ChemFit makes no warranty of merchantability or fitness for a particular purpose. Users shall conduct their own trials to validate product suitability for the intended application. ChemFit reserves the right to modify product specifications without prior notice. For the most current documentation, request the latest Product Data Sheet and Safety Data Sheet from ChemFit.

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