

Technical Data Sheet

FS-ROCK-HARD

Dry Shake Floor Hardener

DESCRIPTION

FS-F-HARD is a ready-to-use dry-shake floor hardener — a factory-blended combination of hydraulic binders and abrasion-resistant mineral aggregates, broadcast directly onto freshly placed concrete while it is still wet. Once floated into the surface, it forms a dense, non-porous wearing course with high resistance to abrasion. Because the aggregate is non-metallic, the finished floor stays slip-resistant without the rusting or breakdown that metallic hardeners are prone to over time.

AREAS OF APPLICATION

Recommended for floors subject to sustained heavy traffic where exposure to aggressive chemicals is not a factor, including:

- Loading bays and garages
- Car parks and ramps
- Storage rooms
- Mechanical workshops

FEATURES

- Highly durable, abrasion-resistant wearing surface
- Non-metallic composition — no rust staining or corrosion over time
- Bonds monolithically with the base concrete slab
- Non-slip finish
- Floor is ready for full service once the concrete has fully cured
- Dense finish reduces oil and grease penetration

PHYSICAL PROPERTIES

(Values determined at 27 ± 1°C)

Hardness (Mohs Scale) 7 – 8 (Medium Duty)

Compressive Strength @ 28 days > 50 N/mm²

VOC Content 4.35 g/L

PACK SIZE

Available Size 25 kg

APPLICATION RATE

Recommended dry-shake application rates by traffic category:

Traffic Use	Application Rate (kg/m ²)	Approx. Particle Size
Light	2.8 – 3.0	3.5 – 4 mm
Medium	4.7 – 5.0	2 – 3.5 mm
Heavy	6.8 – 7.0	< 2 mm

Application Instructions

BASE CONCRETE

Design the base concrete mix with a minimum cement content of 300 kg/m³ and low bleed/segregation tendencies, targeting a slump of around 75mm.

Place and compact the concrete following standard good practice. Level the surface with a straightedge and vibrate it, then float with a wood float without over-closing the surface. Remove any bleed water that appears, and pay particular attention to compaction at bay edges and corners.

TIMING

Getting the timing right matters more than almost any other step in this process. Apply too soon, while bleed water is still present on the surface, and that excess water carries away the cement fraction of the hardener while the heavier aggregate particles settle into the wet concrete rather than bonding to it — the treatment essentially washes out. Apply too late, once the slab has



lost its surface moisture, and there won't be enough water left to properly hydrate the hardener; forcing the material in and trowelling at that stage tends to produce surface cracking later, because the product never had enough moisture to cure correctly.

APPLICATION

FS-F-HARD arrives ready to use — do not add extra cement or aggregate on site. Before starting, mark the floor into bays of known area and stage out enough material to hit the target spread rate for each one.

Begin only once the concrete has firmed up enough that a footstep leaves an imprint of roughly 3mm, and all bleed water has evaporated.

Application happens in two passes:

- First pass: spread 60–70% of the total material evenly across the wet concrete surface. Once it darkens uniformly as it draws in moisture from the concrete, work it into the surface with a wood float so it becomes part of the slab rather than sitting on top of it.
- Second pass: scatter the remaining material evenly over the surface immediately after floating. Let it darken the same way, then float it in as before. Once the floor has stiffened further, final finishing can be carried out with a power trowel.

Bay edges and the ends of bays take more impact in service, so give these areas extra material and a smooth steel-trowel finish for added protection.

CURING

Curing isn't optional — skipping it means the floor won't reach the strength and hardness properties this product is capable of. Start curing as soon as final trowelling is complete, either with polyethylene sheeting over the surface or a suitable Jenga concrete curing compound.

STORAGE & SHELF LIFE

Stored dry under normal conditions, FS-F-HARD remains usable for 12 months from the date of manufacture.

PRECAUTIONS

Keep the product off skin and out of eyes, and avoid prolonged skin contact. Don't let dust build up in the breathing zone or get ingested — wear a dust mask and eye protection throughout handling and application. If it does get into the eyes, flush immediately with plenty of clean water and seek medical advice if irritation continues.

DISPOSAL & SPILLAGE

Soak up any spillage with sand or another inert absorbent material and transfer it into a suitable container. Dispose of both the collected spillage and empty packaging in accordance with local waste disposal regulations.

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