



DRY-SHAKE FLOOR HARDENER — NON-METALLIC — POWER-TROWEL APPLIED

Fly Hard Top

Ready-to-use, polymer-modified dry-shake hardener with graded basaltic aggregate for heavy-duty concrete floors

Broadcast onto fresh concrete and closed with a power trowel, Fly Hard Top becomes part of the slab itself — there is no bond line, so there is nothing to delaminate.

DESCRIPTION

Fly Hard Top is a ready-to-use, factory-blended dry-shake floor hardener based on Portland cement and selected graded basaltic aggregate, with a polymer modifier and performance admixtures. It is broadcast onto fresh, power-floated concrete and worked in with a power trowel to form a dense, monolithic wearing surface with raised abrasion resistance, reduced dusting and an easily cleaned finish.

KEY ADVANTAGES

- Monolithic with the slab — no bond line and no risk of delamination
- Non-metallic: will not rust or stain, so it suits damp and washed-down areas
- Hard graded basaltic aggregate raises abrasion and impact resistance
- Polymer-modified: binds the surface and cuts dusting further
- Formulated to close at a low water content, so the layer cures dense
- Factory-blended and ready to use — no site batching or gauging
- Grey as standard, with other colours to order

FIELDS OF APPLICATION

Fly Hard Top is used on power-trowelled concrete floors carrying heavy traffic and point loads: warehouses and distribution centres, factory and workshop floors, loading bays, car parks, hangars and service yards. It is applied only to fresh concrete as part of the slab finishing operation.

TECHNICAL DATA

Property	Typical Value
Type	Dry-shake surface hardener, non-metallic
Base	Portland cement, graded basaltic aggregate, polymer modifier, admixtures
Aggregate	Selected graded basaltic aggregate — Mohs ≈ 6
Colour	Grey — other colours to order
Bulk density	≈ 1.7 kg/L
Finished layer thickness	≈ 2 – 3 mm, depending on dosage
Compressive strength — 28 days	≥ 70 N/mm ² (typical)



Property	Typical Value
Flexural strength — 28 days	≥ 8 N/mm ² (typical)
Abrasion resistance (EN 13892-3, Böhme)	NPD — test in preparation
Minimum concrete grade	C25/30
Application temperature	+5°C to +35°C

Standards: Compressive and flexural strength are typical values for the formulation; they are not test results and are confirmed on the finished floor to EN 13892-2. Abrasion resistance is determined to EN 13892-3 (Böhme) and classified as EN 13813 class A; it cannot be derived from a mix design and is declared NPD — No Performance Determined — until the test is complete.

CONSUMPTION BY DUTY

Dosage sets the thickness of the hardened layer and therefore the duty the floor will carry.

Duty	Dosage	Typical use
Light	3 – 4 kg/m ²	Light workshops, storage, showrooms
Medium	4 – 5 kg/m ²	Warehouses, factory floors, car parks
Heavy	5 – 6 kg/m ²	Loading bays, forklift routes, hangars

Dosage is spread over two applications, the second broadcast at right angles to the first.

DIRECTIONS FOR USE

- 1. Concrete:** Place and level concrete of at least grade C25/30 with a controlled, consistent mix. Over-wet concrete bleeds heavily and gives a weak surface that no hardener can correct.
- 2. Timing:** Wait until the bleed water has left the surface and the slab will carry a power float, leaving a footprint of roughly 3 – 5 mm. Broadcasting onto standing bleed water traps water beneath the hardener and causes it to delaminate. In hot, dry or windy weather this window arrives much sooner — judge it by the surface, never by the clock.
- 3. First application:** Broadcast about two thirds of the total dosage evenly, by hand or spreader, in two passes at right angles to each other. Allow the powder to darken as it draws moisture from the concrete, then float it in with a power float fitted with discs.
- 4. Second application:** Broadcast the remaining third at right angles to the first application, again allow it to darken, and float in. Never add water to the shake or to the surface to speed up wetting — it weakens the layer.
- 5. Finishing:** As the surface stiffens, finish with a power trowel, raising the blade angle over successive passes to close and burnish the surface.
- 6. Curing:** Cure immediately after final trowelling. Fly Cure curing compound removes the need for water curing. An uncured hardened floor crazes and loses surface strength, and no later treatment recovers it.

CONSUMPTION	PACKAGING	SHELF LIFE
3 – 6 kg/m ²	25 kg paper bag	12 months



REMARKS & SAFETY

Due to its cement content, Fly Hard Top reacts with moisture to form alkaline solutions; it is therefore classified as an irritant.

- Fly Hard Top is applied only to fresh, plastic concrete. It is not a repair material and cannot be applied to a hardened floor.
- Colour variation is inherent to any trowelled cementitious surface. Agree a sample panel on site before production work begins.
- Do not add water to the shake or sprinkle the surface during trowelling.
- Store in dry conditions, clear of the ground, in unopened bags.
- Please consult the directions for safe use and precautions printed on the packaging before use.

Coating note: a power-trowelled Fly Hard Top surface is dense and closed, and an epoxy coating will not key to it as finished. Where Fly Floor 818 is to be applied over Fly Hard Top, the surface must first be mechanically opened by diamond grinding or shot blasting to a fine, uniformly textured profile, and the floor must be at least 28 days old with a moisture content below 4%.