

# CHEMfix 2400

Non-Metallic Mineral Base Dry Shake Floor Hardener

## Description

**CHEMfix 2400** Non Metallic Mineral base Dry Shake Floor Hardener is a specially formulated product designed for flooring work. It provides greatly improved impact and abrasion resistance. **CHEMfix 2400** Non Metallic Mineral base Dry Shake Floor Hardener will provide hard durable floor surfaces. **CHEMfix 2400** Non Metallic Mineral base Dry Shake Floor Hardener is plasticized to provide easier placing and finishing characteristics. It is an economical concrete floor hardener recommended for both interior and exterior use. Applied at the proper point in the concrete setting **CHEMfix 2400** is worked into the concrete to become an integral part of the floor to provide a surface which is highly resistant to abrasion. **CHEMfix 2400** is available in a natural concrete color in addition to a variety of other colors, including Reflective, Tile Red, French Gray, and Nile Green.

## Uses

**CHEMfix 2400** is added to concrete surfaces to improve their resistance to abrasion and inhibit dust formation. **CHEMfix 2400** is suitable for all floors exposed to severe mechanical wear, such as: Warehouses, factories. Quays, Workshops. Car parks, service stations, garages etc.

## Advantages

- High resistance to abrasion.
- Reduces surface dust.
- Improves resistance to impact.
- Increases impact and abrasion resistance up to twice that of plain concrete
- Provides a high density surface that resists liquid penetration and is easy to clean and maintain
- Easy application; **CHEMfix 2400** is Broadcasted into the freshly placed concrete.
- Saves time and labour costs by eliminating the need for a monolithic screed.
- Even finish obtainable when properly smoothed.

## TECHNICAL INFORMATION

**Type** : Non-metallic aggregates

**Form** : Cement-grey, natural and red (other colours on request).

**Apparent Density** : ~ 1.5 kg/lit.

**Mohs Hardness** : 7 - 8 (steel score)

**Resistance to wear** : Loss of weight in taber test after 1'000 cycle.

Reference sample = 4.6 g. (quarts sand mortar containing cement 450 kg/m<sup>3</sup>) = 2.4 g.

**Curing times** : Foot traffic: 1-2 days

**Light vehicle traffic** : 7-10 days

**Fully cured after** : 28 days Curing time depends on temperature and type of cement employed

## Application Details

**Substrate preparation** The concrete slab should be at least 5cm thick, contain an adequate proportion of cement (>350kg/m<sup>3</sup>), be of a minimum 25 N/mm<sup>2</sup> compressive strength and have an on-site slump of 75-100mm. It is recommended to add a suitable **CHEMfix** concrete admixture to improve the concrete properties level the freshly poured concrete by means of a vibrating beam. As soon as the plasticity permits smoothen. Preferably by using a mechanical trowel.

**Application** The concrete slab is ready for application of the **CHEMfix 2400** when a thumb pressed hard onto the surface leaves an imprint of about 3-5 mm depth. Broadcast the **CHEMfix 2400** evenly onto the fresh concrete by hand or with suitable automatic spreading device in two stages (1st stage 3-4 kg/m<sup>2</sup>, 2nd stage 1-3 kg/m<sup>2</sup>). With manual application, the surface bleed water should be removed or allowed to evaporate before application of the **CHEMfix 2400**. Care should be taken to apply the powder so as to avoid creating ripples etc. in the concrete surface. Casting **CHEMfix 2400** powder carelessly or further than 2 meters from point of casting will reduce the consistency of finish.

**Compaction** Wait until the **CHEMfix 2400** has been evenly moistened by the water in the concrete. The first stage should be leveled and compacted into the fresh concrete using a low speed mechanical trowel, held perfectly flat, followed immediately with the broadcasting of the second stage of **CHEMfix 2400**. **CHEMfix 2400** results in the slab surface becoming stiff more quickly than usual. Careful trimming should take place by hand along the edges where adjoining slabs are to be poured. Final finishing to close pores and remove undulations can be achieved either by hand or power trowel.

**Curing** The **CHEMfix 2400** surface must be protected to prevent rapid moisture loss which could result in surface cracking. Immediately after final leveling cure and seal using **CHEMfix 250**.

**Note:** If parts of the surface come loose or if the laitance rises, this means the concrete is still too fresh.

**Smoothing** As soon as the plasticity or initial set allows, perform preliminary smoothing with the same machine running at low speed but equipped with metal smoothing blades, set at minimum angle. Any final smoothing required should be performed later with the machine running at high speed.

## Consumption

Approximately 4.0-7.0 kg /m<sup>2</sup> depending on floor requirements.

**Joints** Contraction joints, and floor joints should be saw-cut only after 24 hours. When the slab has hardened, the joints can be filled and sealed with the appropriate **CHEMfix 340** Polyurethane sealant in accordance with the floor requirements.

## Packaging

25 kg bags, bulk packs are also available.

## Shelf life

12 months minimum from date of production if stored properly in original unopened packing.