

# IRONITE NON OXIDIZING FLOOR HARDENER

## DESCRIPTION

Ironite is a specially prepared metallic hardener for concrete floors. Dusted onto freshly placed concrete and trowelled in, becomes an integral part on the concrete surface and provide protection against wear, impact and abrasion, and a high resistance to various industrial chemicals, oils, grease and detergents.

Ironite is designed to ensure improved durability in applications where the floor is subjected to medium and heavy traffic and where a non-dusting surface is required. It will improve and enhance the in-use performance of all concrete floors.

It can be applied either as a trowelling-in grade using the dry shake method or as a 20mm thicktopping.

## COMPOSITION

Ironite is a processed, non-oxidizing inert metallic aggregate which is applied as a dry shake to the surface of wet concrete or screed.

## TYPICAL USES

Ironite is suitable for use in a wide range of industrial, commercial and institutional flooring applications, as under:

- Workshops
- Power Stations
   Car Parks
- Aircraft Hangars

- GaragesWarehouses
- Car Parks
  Loading Bays
- Helicopter Pads
- Traffic Decking

- Factories
- Shipyards
- Car Washes
- Workshops where tracked vehicles are serviced
- Military installations where tracked vehicles are used

## **ADVANTAGES**

- Ease of application
- Non-oxidizing
- Slip-resistant
- Non-dusting
- For internal and external use
- Easy to clean and maintain
- Economic installation
- Maintenance free, long life performance benefits
- Wear abrasion and impact resistance superior to concrete

# **APPLICATION**

A well proportioned mix design is essential. The concrete supplier should ensure that cement contents, water cement ratios and slumps are generally in accordance with the following:

Cement (SRC or OPC)	Min 320kg/m3
Water-cement ratio	Max. 0.50
Slump	Ideally 75mm
Strength	Min 30N/mm2

# **METHOD OF APPLICATION**

#### **Dry Shake**

Dry mix two 50kg bags of Ironite with one 50kg bag of cement (OPC). Mix on a dry flat surface and DO NOT add water. The dry mix should be sprinkled when the base concrete is sufficiently firm and leaving foot prints no more than 3mm deep. Any bleed water should first be removed (avoid sponge type absorbents).

#### The application is carried out in two stages

Apply 2/3 of the required material to the concrete ensuring uniform distribution.

Allow applied material to absorb moisture from the concrete surface, a uniform darker colour will be apparent.

Using a wooden trowel, float Ironite into the concrete, ensuring material becomes an integral part of the surface.

Apply the balance of material. Wait again until material has obtained a darker colour before floating with a wooden trowel.

When surface is firm enough to take the weight of foot traffic, Ironite should be finished off by means of a power float. A good slip resistant finish can be obtained, but the surface should not be overworked.

If manual finishing with steel trowels is to be undertaken, this should take place before concrete becomes firm enough to take foot traffic.



Power Trowelling



Manual Screeding

## **MONOLITHIC CONSTRUCTION**

A 20mm thick Ironite topping is laid within three hour of the placing of base concrete. This form of construction should be used wherever it is possible because it produces an integral floor, minimizing the dangers of cracking or curling of the surface.

### **CURING**

Curing should be carried out immediately after the final trowelling operation has been completed. This can be achieved by the application of curing compound at the rate of 11 tre/5m2.

### PACKAGING

Ironite is available in 25kg or 50kg Polypropylene bags.

### COVERAGE

Material required per m2.

## **DRY SHAKE METHOD**

Medium Duty 5kg Ironite + 2.5kg OPC i.e. 7.5kg/m2

Heavy Duty 8kg Ironite + 4kg OPC i.e. 12kg/m2

Monolithic Construction 20mm Topping 50kg OPC + 100kg Stone chips + 25kg Ironite covers approx. 5m2

### **STORAGE & SHELF LIFE**

Store in a dry place and use within 24 months from date of manufacture.

The information given in this datasheet is based on both current development work and many years of field experience. Whilst every effort is made to ensure that the information is reliable, we cannot accept responsibility for any work carried out with our materials as we have no control over methods of application, site, conditions, etc.  Unit # 001, Building A1, International Free Zone Authority, Dubai Silicone Oasis, Dubai, United Arab Emirates.

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