



# FERON™

## **Dry-shake floor surface hardener**

### **Advantages:**

- Non-corrosive metallic aggregate
- Available colored or natural
- Increases abrasion resistance
- Fuses permanently to concrete
- Resistant impacts, and most oils, greases, and chemicals

### **Coverage:**

- Heavy Duty – 1.5-1.8 lbs per ft<sup>2</sup> (7.32-8.79kg/m<sup>2</sup>)
- Medium Duty – 1-1.5 lbs per ft<sup>2</sup> (4.88-7.32kg per m<sup>2</sup>)

**See Coverage section for full details**

### **Packaging:**

60 lb (27.2kg) bag  
60 lb (27.2kg) pail (5 gal)

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## **Product Description**

FERON™ is a machine blended cement and non-corrosive aggregate product that is intended to be dusted onto and trowelled into the surface of freshly poured concrete, thus becoming an integral part of the concrete floor surface. FERON™ is designed for floor surfaces that will be subjected to heavy wear and abrasion from rolling loads. It is not a topping over hardened concrete; therefore, bonding problems normally associated with toppings are eliminated. The high concentration of aggregate at the surface, along with pigmented or natural colored cements permanently fused to it, gives the floor surface a durable, attractive, iron like hardness that will stand up under the most severe conditions.

FERON™ is ideal for floors where heavy duty rolling loads will wear out concrete surfaces rapidly such as warehouses, distribution centers, and manufacturing plants. It is also used in areas where surface dusting will adversely affect product purity of production performance efficiency.

The longer the FERON® concrete floor remains in service, the more it will return on the initial investment. Having to replace or make major repairs when a floor is only a few years old can cost many times the original cost. Having that in mind, FERON™ will pay for itself.

## **Installation**

Before using this product, please refer to the Material Safety Data Sheet for additional information. Proper handling precautions MUST be followed. The conditions of use, handling, and application of this product and information (whether verbal or written), including any suggested formulations and recommendations, are beyond Lambert Corporation's control. Therefore, it is imperative that testing be performed to determine satisfaction and suitability for intended use and health, safety, and

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environmental issues. The following information is meant as a guideline of best industry practices. While Lambert Corporation does suggest adherence to these guidelines, unforeseeable variables and/or developed successful installer practices may cause variation in methods and/or results.

### **Concrete Substrate**

Use a placeable and finishable concrete mixture of a minimum cement content of 500 lbs (226.8kg) per cubic yard, a water to cement ratio below 0.55, and an air content of 3% maximum. The concrete substrate should be laid and compacted in accordance with good concrete practice.

### **Cautions - Air-Entrained Concrete**

Excessive air content in the concrete will frequently produce a very rubbery condition that is difficult to finish to a level, smooth surface. Unusually high amounts of air may separate from the mix and become entrapped in the form of bubbles below the surface being finished. These bubbles not only prevent trowelling the floor to a level surface but also can produce blisters. For heavy-duty traffic areas, concrete designed for at least 4500 PSI (31.0MPa) should be used. At temperature below 60°F (15.6°C) or above 85°F (29.4°C), follow ACI Recommended Practices for Cold or Hot Weather Concreting.

### **Placing and Consolidating Concrete**

Deposit concrete between previously placed screed points with the least possible handling. Vibrators may be used to consolidate concrete. Strike off concrete level with a true wooden strike off bar. Immediately behind the strike-off operation, the concrete is further leveled and consolidated with a wooden Darby. This operation must be completed before any free moisture (bleed water) rises to the surface. If there is free-bleed water on the surface, remove it prior to first floating. Float areas to an even surface that corresponds to the finished grade as soon as the concrete will handle weight of finisher.

### **Application**

Job specifications usually state the rate of pounds per square foot of surface area at which the FERON™ is to be applied. The FERON™ material must obtain all its moisture from the base slab when it is being incorporated into the surface of the concrete. The addition of any water will destroy the integrity of the wearing surface and cause bond failure. Application of FERON™ can only commence when the bleed water has evaporated (no excess moisture shows at the surface) and light foot traffic produces an imprint of about 1/4 inch (6.4mm) thick. FERON™ is applied evenly to the surface by the cast-on method. Apply by hand, allowing the shake-on material to sift through the gloved fingers while moving the hand to obtain a uniformly thick application over the surface. Do not throw the FERON™ or broadcast it by shovel. Apply as soon as possible to areas adjacent to walls, forms, columns and doorways since these areas lose moisture more rapidly. Water must not be added to the surface during application or finishing. The moisture must come from the substrate in order to insure adequate bond and density. A material spreader is recommended for large jobs. Material spreaders eliminate the problems of over and under application caused by hand casting.

The first FERON™ application should consume 50-60% of the total specified poundage, with the balance held for a second application and final touch up. With wooden hand floats or power floats, float the shake-on material applied adjacent to walls, forms, columns and doorways as soon as possible. Finishers using a power trowel with float blades should float the shake over all other areas as soon as the FERON™ material has absorbed moisture from the concrete beneath it (this will be apparent by surface darkening) and as soon as the float blades do not mark the surface. Float just enough to bring the moisture through the shake and to achieve a "paste". Time the floating so it will not be necessary to sprinkle water on the surface. Do not steel trowel.

The second application is then applied immediately, so it can absorb the moisture through the first shake material before it evaporates. Apply the second FERON™ shake at right angles to the first one for more even color and thickness. When second application has absorbed moisture (indicated by darkening of the surface) float the surface with a power trowel equipped with float blades or disc float. It is important to achieve a "paste" consistency (low water/cement ratio) which is then worked into and on the concrete substrate, and becomes a high compressive strength surface. The surface can be further compacted by additional floating if time and setting characteristics of the concrete permit. When concrete is just barely hard and firm, steel trowel uniformly to a smooth finish. This is a "time sensitive" operation - never re-wet. If FERON™ needs added water to make it work better, the result is a higher water/cement ratio of the "paste" which greatly reduces the compressive surface strength of the floor.

### **Finishes**

Surface may be "broomed", smoothed, scored, or textured if desired. Smooth finishes that require excessive steel trowelling are not recommended unless the poundage is increased to a minimum of 1 (one) pound per square foot (4.88kg/m<sup>2</sup>) of surface area. A heavy or light broom finish is recommended for most exterior surfaces.

### **Curing and Sealing**

FERON™ may be cured and sealed with Lambert's cure and seal products

### **Protection**

After curing and sealing, area should be segregated. Alert other trades to the need for special protection against the rolling or sliding of heavy loads across the surface until concrete has been cured 28-30 days

### **Limitations**

Do not use where floors are subject to acids or like materials that rapidly attack cement. Do not apply over concrete containing added calcium chloride. Do not apply over concrete containing aggregate contaminated with salt. Do not apply over concrete containing more than 3% entrained air. Do not burnish trowel FERON™.

### **Coverage**

- Heavy Duty Industrial Use - 1.5 to 1.8 pounds per square feet of surface area (7.32-8.79kg/m<sup>2</sup>)
- Medium Duty Industrial Use - 1.0 to 1.5 pounds per square feet of surface area (4.88-7.32kg/m<sup>2</sup>)

### **Clean-Up & First Aid**

#### **Clean-Up**

Product can be swept up, paying close attention to the minimizing the creation of excessive dust.

#### **First Aid**

Cement powder or freshly mixed concrete may cause skin injury. Avoid contact with skin and wash exposed skin areas promptly with water. If any cement powder or mixture gets into eyes, rinse immediately and repeatedly with water and get prompt medical attention.

**KEEP OUT OF REACH OF CHILDREN.  
FOR INDUSTRIAL USE ONLY.**