

## QUARTZPLATE FF™ LIGHT REFLECTIVE

Non-Metallic, Light Reflective Dry Shake  
Surface Hardener

### MANUFACTURER

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### PRODUCT DESCRIPTION

QUARTZPLATE FF LIGHT REFLECTIVE is a ready-mixed, scientifically graded, 98% pure silica aggregate, non-metallic, dry shake-on hardener which combines the abrasion resistance of the natural quartz aggregate with energy saving light reflectivity. QUARTZPLATE FF treated floors wear up to four times longer than normal concrete.

**Basic Use:** QUARTZPLATE FF LIGHT REFLECTIVE is recommended for use in airplane hangars and maintenance buildings, automotive and truck service centers, parking garages, factory floors, warehouses, commercial and industrial facilities, shopping centers, schools, civic centers and theaters. Designed for medium duty floors where durable, attractive, protection against bacterial growth and alkali corrosion are desired; i.e., food processing plants, meat packing plants, schools, shipping areas, terraces or parking decks.

### FEATURES & BENEFITS

- Increases light reflectance levels 60%..
- Durable, long lasting.
- Four times greater abrasion resistance than normal strength concrete.
- Denser surface to reduce maintenance and reduce contaminant, grease and oil penetration.

### ESTIMATING

QUARTZPLATE FF LIGHT REFLECTIVE comes in 55 lb. (25 kg) multi-walled polyethylene reinforced bags.

#### Coverage Rates:

Heavy Duty	1.0 lb/ft <sup>2</sup> (5 kg/m <sup>2</sup> )
Maximum Reflectivity	1.5 lb/ft <sup>2</sup> (7 kg/m <sup>2</sup> )

### INSTALLATION

#### The Standard ACI 302 Method

- This method can be used if the QUARTZPLATE FF LIGHT REFLECTIVE is to be placed by hand or using a material spreader.
- Screeding and fill floating (bull floating) shall take place before the emergence of bleed water.
- After excess bleed water has evaporated or been removed, leaving sufficient moisture at the surface to

hydrate cement binders in the QUARTZPLATE FF LIGHT REFLECTIVE, evenly distribute approximately 2/3 of the hardener specified for the area. If the hardener breaks through the surface when being applied, the concrete is too plastic for product application.

- When the material darkens slightly from absorbed moisture, it should be floated, using hand wooden floats or power floats with float shoes ( *do not use combination float and trowel blades* ). Care should be taken not to tear through the surface of the hardener to the underlying concrete. *Do not apply more hardener until moisture from the underlying concrete has been worked completely through the hardener.*
- Immediately apply the remaining 1/3 of the specified amount of hardener at right angles to the first application. *The moisture from the underlying concrete must be completely worked through the hardener. If this does not occur, the floor surface will delaminate.*
- Allow to darken from moisture and float as before. After the concrete has further stiffened, it should be machine or hand troweled to a blemish free finish. Care should be taken not to trowel-burn the surface. Use only stainless steel finishing tools and trowel blades.

### CURING

Apply non-yellowing LUMISEAL WB, protective membrane cure, in strict accordance with the label directions after final troweling and surface water glaze has disappeared. In areas where subsequent treatments, such as SEAL HARD, are scheduled, consult your local L&M representative for specific curing recommendations. *Do not wet cure QUARTZPLATE FF LIGHT REFLECTIVE by ponding water for the first 24 hours.*

### FOR BEST RESULTS:

- The concrete used in the floor should have a slump of 4 to 5 inches and the total air content must not exceed 3 percent.
- Air entraining agents and chlorides or admixtures, aggregates, and mixing water that contain chlorides shall not be used in concrete that is to receive QUARTZPLATE FF LIGHT REFLECTIVE. If admixtures are used in the concrete caution should be exercised.
- If blisters form during the finishing operation they must be immediately ruptured before continuing the finishing operation. The formation of blisters is caused by premature closing of the concrete slab. If blisters occur, the blades of the finishing equipment



**QUARTZPLATE FF LR**



must be set at a flatter angle with respect to the surface of the concrete slab.

- The primary cause of delamination is premature closing of the concrete slab. Premature closing is caused by the float or trowel blades being set at too great an angle with respect to the surface of the concrete slab. This can be prevented by holding the slab open and by delaying the final troweling as long as possible. Keep the angle of the blades of the finishing equipment as flat as possible during all stages of the finishing operation.
- Use only stainless steel finishing tools and trowel blades. L&M is not responsible for diluted or mottled color resulting from careless or improper shake application, finishing, curing or failure to protect finished floor from damage by construction trades.
- Unvented flue and exhaust gasses from heaters and equipment will cause a carbonated floor surface. This results in weak and potentially dusting surfaces. Proper ventilation must be provided.
- Job conditions that influence surface drying and setting times of concrete may affect the timing of the hardener application and finishing procedures. Do not add cement, sand, aggregate or admixtures. Follow ACI recommended practices.

Maximum air entrainment is 3%. Do not add accelerators to mix. Avoid application in extreme cold or hot weather. Stainless steel finishing tools and trowel blades are recommended to insure color integrity.

## **PRECAUTIONS**

Contains portland cement and quartz silica. Avoid creating and inhaling dust. Provide ventilation and respiratory protection. Dust mask recommended. Wear skin and eye protection. Please refer to Product Material Safety Data Sheet (MSDS) before using.

## **STORAGE/SHELF LIFE**

**QUARTZPLATE FF LIGHT REFLECTIVE** bags are to be kept in dry storage to prevent water contamination. Shelf life is 18 months in unopened bags.

## **TECHNICAL SERVICES**

L&M recommends that the user request the service of the local representative for a pre-job conference to carefully plan each step of the installation. However, proper application is the responsibility of the user. Field visits by L&M personnel are for the purpose of making technical recommendations only and will not include supervision or quality control of application procedures or engineering details.

## **WEBSITE**

L&M's convenient internet website offers instant access to Tech Data Sheets, Material Safety Data Sheets, product updates, and other useful information. Visit [www.lmcc.com](http://www.lmcc.com) and follow the easy steps. L&M is ready to respond to your concrete information needs - anytime - anywhere!

## **SHORT SPEC**

033500: Concrete Finishes: Light reflective hardener. Light reflective natural quartz aggregate, minimum 1.0 lbs/sq.ft. (5 kg/m<sup>2</sup>). Application shall increase floor light reflection a minimum of 60%. **QUARTZPLATE FF LIGHT REFLECTIVE**™ by L&M Construction Chemicals, Inc.

## **LIMITED WARRANTY**

*This product is warranted to be free of defects in material and workmanship, and conform to L&M Construction Chemicals ("L&M") quality control standards. All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind, expressed or implied including but not limited to, an implied warranty of merchantability or an implied warranty of fitness for a particular purpose. Satisfactory results depend upon many factors beyond L&M's control. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from his or her direct use, indirect use or consequential to their use of the product. L&M shall not be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use or inability to use the product. L&M's sole responsibility shall be to replace that portion of the product which proves to be defective. Any warranty claim must be made within six (6) months from the date of the claimed breach. This limited warranty applies only if the product was properly installed and used according to all instructions and was properly stored prior to use.*

**For Professional Use Only.**

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