

### FT610™ Concrete Densifier and Hardener



#### **DESCRIPTION**

FT 610™ Concrete Densifier & Hardener - A clear solution used to harden, densify and dustproof new and old concrete. FT 610™ Concrete Densifier & Hardener reacts with elements in the concrete surface to enhance the appearance providing a low sheen while reducing the absorption of liquid and increasing abrasive resistance.

#### **ADVANTAGES**

- Use on new or old floors
- Will not scratch or peel
- Non-flammable
- Economical
- Appearance improves with use
- No odors - no fumes
- Long lasting
- Develops a sheen after use
- Resists black rubber tire marks
- Reduces floor maintenance
- Water based, 0 VOC's
- Stops dirt penetration
- Easy to use
- Non-combustible
- Hardens, dustproofs and densifies

#### **COVERAGE**

Approximately 175 - 200 square feet per gallon

#### **RECOMMENDED USES**

- Warehouse floors
- Distribution centers
- Manufacturing plants

#### **FEATURES**

- Reduces porosity
- Increases hardness
- Suitable for use over dry or damp concrete
- Improves surface appearance

#### **APPEARANCE**

FT 610™ Concrete Densifier & Hardener is a clear liquid which dries transparent as the sealer cures and dries out. The treated concrete gradually increases in tightness and gloss.

#### **GENERAL DATA**

Color	Clear, or pigmented
VOC	0.0 g/l
Percent Solids by Weight	23—25%
Application Temperature	50-95° F < 90% RH
Flash Point	None
Coverage	175-200 ft/gal
Odor	Odorless
DOT Information	Paint, Not Regulated

#### **STANDARD TESTS**

<b>ASTM D 4258-83</b>	Standard Practice for Surface Cleaning Concrete for Coating
<b>ASTM D 4259-83</b>	Standard Practice for Abrading Concrete
<b>ASTM D 4260-83</b>	Standard Practice for Acid Etching Concrete
<b>ASTM D 4262-83</b>	Standard Test Method for pH of Chemically Cleaned or Etched Concrete Surfaces

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## AVAILABLE COLORS



White (#617) Yellow (#616)  
Custom Colors (#618)

## CAUTION AWARENESS

As with all high performance coatings, the cured product may become slippery when wet or if exposed to oily conditions. For a procedure for incorporating aggregate to obtain a non-slip finish, contact your FloorTech/IFC Sales Representative.

This product may contain solvents and is recommended for use only in areas with adequate ventilation.

## LIMITATIONS

This product is not designed for exterior use, immersion, or any use where moisture can reach the underside of the resurfacer. Do not apply to floors previously treated with curing and parting compounds or other coatings unless they have been completely removed by chemical or mechanical means. Do not use on vinyl, asphalt, rubber, glazed tile, paving brick, quarry tile, Mexican tile, or similar materials.

Before applying for protection against specific chemical environments, consult Chemical Resistance Guide or FloorTech Technical Service.

Sealed surfaces may discolor under tires due to tire plasticizer migration.

If the product is to be applied in or near areas containing food stuffs, they should be removed before the application and until the coating has fully cured and all vapors have dissipated.

As with all high performance coatings, the cured prod-

uct may become slippery when wet or if exposed to oily conditions. Aggregate may be incorporated to maintain a non-slip finish.

Do not thin this product. Addition of thinners will slow the cure and reduce the ultimate properties of this product. Critical recoat times will also be affected.

## FLOOR INSPECTION

The area to be surfaced must be a minimum of 60 days old, clean, sound and above 60°F.

The surface must be checked to determine if a curing compound and/or coating is present.

Moisture content of all concrete surfaces to be resurfaced and/or coated must be checked to determine the presence of excess moisture or moisture vapors.

Steps To Take:

1. *Polyethylene Sheet Method*—apply 2x2' plastic sheet to the surface to be tested with duct tape. After 24 hours, check underside for presence of moisture.
2. *Delmhorst Moisture Meter*—this is an electrical resistance test to measure moisture content. Two holes are made in the area to be tested and two probes are inserted and a measurement is taken. A reading of >20 indicates the presence of moisture.
3. *Calcium Chloride Test*—Most accurate to measure vapor transmission by absorbing anhydrous calcium chloride. A pre measured lid is placed under an airtight cover for 60 hours after which the lid containing calcium chloride is measured and the increase in weight is a measurement expressed in pounds of water per 1,000 sq. ft. A reading above 3 indicates the presence of moisture.

## SURFACE PREPARATION

All oils, grease, curing compounds, laitants and surface contaminants must be removed first. If surface has been previously coated and testing indicates that it must be removed to provide a suitable profile for proper adhesion. Check with your FloorTech Sales Representative for feasibility for chemical/mechanical removal.

The proper profile recommendation is important because it determines the thickness of the system, bond strength and wearing characteristics of the system used. A thin mil protective coating will require a tightly

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textured low profile to maximize bond and provide flatness to maximize wear and reflectivity.

The International Concrete Repair Institute (ICRI) Guideline No. 03732 has set forth a numerical, surface profiling indicators to be specified for various coating systems — from CSP 1 (Concrete Surface Profile ) for 0—3 mil coatings to CSP 9 for >125 mil for synthetic overlayments.

FloorTech adheres to the surface profile guidelines on all coating systems as established by ICRI.

## ICRI Guidelines

	Dry Mil	Coating System
CSP 1, 2 & 3	0—3 Mils	FT300/500 Series
CSP 2, 3 & 4	4—10 Mils	FT500 Series
CSP 4, 5 & 6	40—125 Mils	FT400 High Build Series
CSP 5, 6, 7, 8 & 9	>125 Mils	FT820 & FT900 Series

## CHEMICAL PREPARATION

ASTM D-4258-83 Standard Practice for Surface Cleaning Concrete for Coating

ASTM D-4260-83 Standard Practice for Etching Concrete

## MECHANICAL PREPARATION

Coating / overlayment that requires a profile greater than a CSP 3 should be profiled mechanically by shot blasting or manual scarifying/grinding. Surface should be left with a uniform CSP texture.

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**FloorTech Inc.**

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## Chemical Resistance Guide

The following Chemical Resistance Guide will aid in determining the effect of various chemicals to FT 610™ Chemical Densifier & Hardener. Results are based on a 24 hour spot test under a watch glass sealed with paraffin wax @ 77°F. The product tested was mixed and applied to a panel primed in accordance to the manufacturer's standard specifications. The coating was allowed to cure for a minimum of 7 days @ 77°F prior to testing. Ratings for the pigmented version are based on the standard clear combined with FT Gray Pigment. A rating system for this guide is as follows:

### Ratings Key

E	Excellent
G	Good
F	Fair
NR	Not Recommended
OS	Occasional Spillage

### Organic Acids

Reagent	Conc.	Rating
Acetic	5%	E
Acetic	10%	E
Acetic	20%	E
Acetic	Glacial	F
Butyric	10%	E
Citric	10%	E
Citric	50%	E
Cresylic	10%	E
Formic	10%	E
Lactic	10%	G
Lactic	25%	G
Maleic	30%	F
Maleic	60%	F
Maeic	50%	F
Monochloro Acetic	5%	E
Monochloro Acetic	10%	E
Oleic	Sat.	E
Oxalic	Sat.	F
Picric	Sat.	F

### Inorganic Acids

Reagent	Conc.	Rating
Boric	30%	G
Boric	Sat.	F
Chromic Acid	2%	G
Chromic Acid	10%	F
Chromic Acid	15%	F
Hydrochloric	10%	G
Hydrochloric	37%	G
Hydrochloric	Conc.	NR
Hydrofluoric	10%	NR
Hydrofluoric	24%	NR
Hypochlorous	5%	NR
Nitric	10%	G
Nitric	30%	NR
Nitric	Over 40%	NR
Nitric	Conc.	NR
Perchloric	35%	NR
Phosphoric	10%	NR
Phosphoric	35%	NR
Phosphoric	75%	NR
Sulfuric	25%	NR
Sulfuric	50%	NR
Sulfuric	70%	NR
Sulfuric	Conc.	NR

### Alkalies & Salts

Reagent	Conc.	Rating
Aluminum Chloride	50%	F
Ammonium Chloride	50%	F
Ammonium Hydroxide	10%	E
Ammonium Hydroxide	20%	E
Ammonium Hydroxide	50%	E
Ammonium Nitrate	Sat.	G
Ammonium Persulfate	Sat.	G
Ammonium Sulfate	Sat.	F
Calcium Chloride	50%	F
Calcium Hydroxide	Sat.	F
Calcium Hypochlorite	15%	F
Ferric Chloride	Sat.	F
Ferric Sulfate	Sat.	E
Potassium Hydroxide	40%	F
Sodium Bicarbonate	Sat.	E
Sodium Bisulfate	Sat.	E
Sodium Carbonate	Sat.	E
Sodium Chloride	20%	G
Sodium Hydroxide	10%	F
Sodium Hydroxide	50%	F
Sodium Hypochlorite	10%	E
Sodium Sulfate	Sat.	E
Sodium Sulfide	Sat.	E
Trisodium Phosphate	10%	E
Trisodium Phosphate	Sat.	F

### Ketones - Esters

Reagent	Conc.	Rating
Acetone	100%	E
Amyl Acetate	100%	E
Butyl Acetate	100%	E
Ethyl Acetate	100%	E
Methyl Ethyl Ketone	100%	G
Methyl Isobutyl Ketone	100%	E
PM Acetate	100%	E

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