



MapecreteTM Hard FS



Liquid, Magnesium Fluorosilicate Densifier and Dustproofer for Concrete



DESCRIPTION

Mapecrete Hard FS is a water-based, magnesium fluorosilicate solution for horizontal concrete surfaces that chemically bonds with the free lime in concrete to produce a denser, more durable and chemically resistant floor surface.

FEATURES AND BENEFITS

- Hardens floors that have soft and powdery surfaces
- Environmentally friendly with a VOC-free and odorless formula
- Resists acids, alkalis, organic and inorganic chemicals, oil and grease
- Produces a breathable, dense, abrasion-resistant concrete surface
- Non-filming; reduces cleaning and maintenance costs for floors

INDUSTRY STANDARDS AND APPROVALS

LEED v4 Points Contribution

LEED Points

Health Product Declaration (HPD)*Up to 2 points

** Using this product may help contribute to LEED certification of projects in the category shown above. Points are awarded based on contributions of all project materials.*

WHERE TO USE

- Interior/exterior
- Industrial floors in warehouses, distribution centers, manufacturing plants and transportation terminals

- Concrete floors in medical buildings, institutional floors, and the floors of commercial garages and buildings
- Effective on horizontal concrete surfaces
- Effective on all porous, untreated concrete and carbonated surfaces

LIMITATIONS

- For optimum installation, apply when surface temperatures are at least 40°F (4°C) and rising.
- Do not allow if rain is expected within 24 hours.
- Do not apply *Mapecrete Hard FS* to uncured concrete.
- Do not apply *Mapecrete Hard FS* to floors previously sealed or treated with curing compounds, unless these compounds have been chemically or mechanically removed.
- Protect adjacent surfaces – including metals, glass and wood – from overspray. Immediately wash off any overspray with potable water.

Consult MAPEI's Technical Services Department for installation recommendations regarding any substrates and conditions not listed.

SUITABLE SUBSTRATES

- New, cured (at least 7 days old) and existing concrete surfaces

SURFACE PREPARATION

- Concrete should be clean and free of any dirt, residue, debris, curing compounds, cure and seals, paint, coatings, oil and wax that could prevent the penetration of *Mapecrete Hard FS*. Before applying *Mapecrete Hard FS*, allow the concrete to air-dry for at least 24 hours after cleaning.



MIXING

Choose all appropriate safety equipment before use. Refer to the Safety Data Sheet for details.

- *Mapecrete Hard FS* is easily diluted with water and mild agitation (see the dilution ratio in the “Approximate Coverage” chart).

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Pre-dampen concrete in hot weather when ambient temperatures are greater than 80°F (26°C). Apply *Mapecrete Hard FS* after all standing water has dissipated.
2. Flood each coat of *Mapecrete Hard FS* onto the concrete surface and spread with a soft-fiber broom or with a mop, squeegee, roller or sprayer.
3. Allow the solution to soak into the substrate for 10 to 15 minutes, redistribute any remaining puddles and mop up any excess.
4. Allow *Mapecrete Hard FS* to dry between coats – generally for 4 to 12 hours, depending on temperature and humidity. Two coats are typically required on nonporous floors, but if the floor has severe dusting or carbonation, a third coat may be required.
5. Any areas showing patches of white on the floor should be immediately flooded with hot water and scrubbed.

CLEANUP

- Clean tools and equipment immediately after use with soap and water.
- Dried material may require mechanical means for removal.

Product Performance Properties

Laboratory Tests	Results
Chemical resistance	Caustic soda, sodium chloride, soap solutions, calcium chloride, solvents, fuel oils, ammonium chloride and sugar solutions
VOCs (Rule #1113 of California's SCAQMD)	0 g per L

Shelf Life and Product Characteristics

Shelf life	2 years when stored in original, unopened packaging at 73°F (23°C)
Physical state	Clear, thin liquid

Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

Application Properties

Drying time at 70°F (21°C)	
Ready for foot traffic/rain	4 to 6 hours
Ready for wheel traffic	8 to 12 hours

CSI Division Classification

Concrete Finishing	03 35 00
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Packaging

Size
Pail: 5 U.S. gals. (18,9 L)
Pail: 55 U.S. gals. (208 L)

Approximate Coverage* per 1 U.S. gal. (3,79 L)

	Dilution Ratio (Mapecrete Hard FS : Water)	Coverage Rate for Diluted Mapecrete Hard FS	Volume of Undiluted Mapecrete Hard FS Needed for 1,000 sq. ft. (92,9 m ²)
1st coat	1 : 2	150 sq. ft. per U.S. gal. (3,67 m ² per L)	2.2 U.S. gals. (8,33 L)
2nd coat	1 : 1	200 sq. ft. per U.S. gal. (4,9 m ² per L)	2.5 U.S. gals. (9,46 L)
3rd coat	2 : 1	300 sq. ft. per U.S. gal. (7,35 m ² per L)	2.2 U.S. gals. (8,33 L)

* Coverage varies depending on the surface porosity.

Mapecrete™ Hard FS



Refer to the SDS for specific data related to health and safety as well as product handling.

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at

www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use,

and the user alone assumes all risks and liability. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

We proudly support the following industry organizations:



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For the most current BEST-BACKED™ product data and warranty information, visit www.mapei.com.

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