DuPont™ Capstone® Repellent ST-200

PENETRATING SEALER FOR POROUS SURFACES

TECHNICAL INFORMATION

Description

DuPont™ Capstone® repellent Grade ST-200 is a solvent-based acrylic fluorinated co-polymer that provides a durable, subsurface, transparent, protective barrier against oil and water on porous surfaces such as stone, tile, and grout. It is used in solvent-based penetrating sealers, especially for low-porosity stone, unglazed tile, grout, terra cotta, and other porous surfaces such as concrete and brick. Grade ST-200 provides oil and water repellency, stain resistance, and easy stain cleanup.

Typical Properties

Appearance	Clear, slightly yellow liquid
Active Solids, %	35
Solvent, %	65
Density, g/mL	0.968
Flash point (closed cup), °C (°F)	28 (82)
Boiling Point, °C (°F)	120 (248)
Cold Storage	Product gels below 0 °C (32 °F)
	Product is freeze/thaw stable

** This table gives typical properties (not specifications) based on historical production performance. DuPont does not make any express or implied warranty that this product will continue to have these typical properties. Please contact DuPont for product specifications.*

Applications

DuPont™ Capstone® repellent Grade ST-200 is used in diluted solutions containing 1.5–2.5% active ingredient (4–7% commercial product). The optimum level should be determined for each application. The product may be applied using a saturated brush, roller, or mop, or a low-pressure garden-type sprayer.

Grade ST-200 is soluble in most hydrocarbons (e.g., heptane, white spirits, isoparaffins), esters, ketones, and hydrocarbon/alcohol mixtures (e.g., heptane/isopropyl alcohol). In non-polar solvents, optimum performance can be achieved with the addition of 5–10% polar, protic solvents such as isopropyl alcohol.

Performance

DuPont™ Capstone® repellent Grade ST-200 (diluted to 4% product in solvent) was compared to a competitive solvent-based silicone sealer. Each product was applied to limestone and Saltillo (also known as Mexican clay tile, or terra cotta) and allowed to dry for three days. Corn oil, Italian dressing, ketchup, mustard, grape juice, and hot coffee were then placed on the treated substrates. After 24 hours, the tiles were washed with a mild detergent solution and allowed to dry. The remaining stains were rated as follows: 0 = No stain, 1 = Very light stain, 2 = Light stain, 3 = Moderate stain, 4 = Heavy stain. The ratings were totaled for each tile sample. The results below show that Grade ST-200 outperformed the competitive solvent-based silicone sealer. Similar results have been achieved on other stone substrates such as granite and marble.

Performance Comparison

24 Hour Stain Scores

Treatment	Limestone	Saltillo
DuPont™ Capstone® repellent Grade ST-200	2	2
Silicone (solvent)	12	11
Untreated	13	14

Treatment	Oil Repellency	Water Repellency	Stain Resistance
DuPont™ Capstone® repellent Grade ST-200	excellent	excellent	excellent
Silicone (solvent)	poor	excellent	poor
Untreated	none	none	very poor

First Aid, Storage and Handling

See the material Safety Data Sheet (SDS) for product specific information. Mix well before using.

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DuPont™ Capstone® Repellent ST-200

DuPont™ Capstone® Repellents and Surfactants:

- Deliver more sustainable solutions with maximum performance
- Are short-chain molecules that cannot break down to PFOA in the environment
- Are supported by an in-depth foundation of data
- Are in compliance with REACH requirements
- Meet the goals of the U.S. Environmental Protection Agency 2010/15 PFOA Stewardship Program

For questions regarding technical data, commercialization, and sampling:

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