

DuPont™ Capstone® Fluoropolymer FS-22

TECHNICAL INFORMATION

Description

FS-22 is a solvent-borne additive that provides low surface tension in solvent-based and high solids systems. It is compatible with most solvent-based systems. The low surface tension enables better wetting, spreading, and leveling. When cured into a coating, FS-22 provides surface water and oil repellency and chemical resistance to the film. Used in a cleaning system, FS-22 boosts stain resistance through surface energy modification. In non-polar systems, FS-22 provides foaming properties. At very low use rates, FS-22 delivers advanced wetting and leveling power. The typical use rate of FS-22 for most applications is from 0.05% to 0.25% on an active ingredient basis.

Applications

- Paints and Coatings
 - Improved wetting and leveling to eliminate craters, pinholes, fisheyes and orange peel surface defects
 - Compatible with wide range of solvent-based paints, such as alkyd, acrylate, and 2K polyurethane
 - Improved water and oil repellency in the dried film
- Waxes and Polishes
 - Improved wetting and enhanced leveling
 - Reduced crater and other coating defects
 - Compatible with many solvent-based waxes and polishes
- Graphic Arts
 - Increased pigment wetting in inks
 - Improved cylinder life in print equipment
 - Better print definition
- Cleaning Products
 - Improved wetting and penetration
 - Effective on soils that are difficult to wet
- Hydrocarbon Applications
 - Excellent solubility in a variety of solvents
 - Provides enhanced foaming properties to non-polar systems at low product concentrations
- Fluoropolymer and PTFE dispersion
 - Improved dispersion stability

Typical Properties

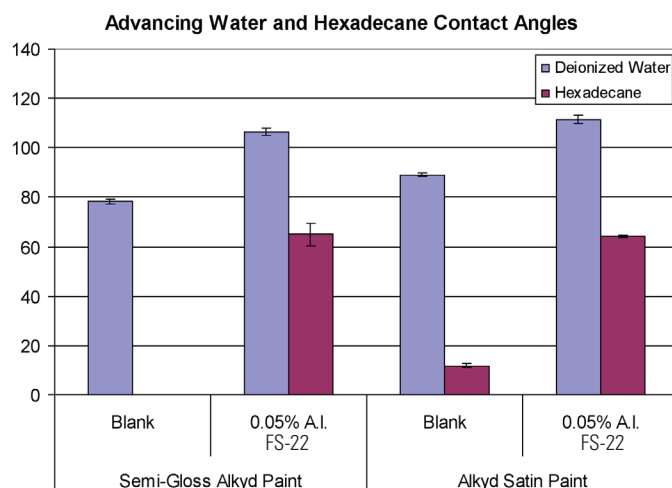
Appearance	Light yellow liquid
Composition	30% solids in methyl isobutyl ketone (MIBK)
Structure	Partially fluorinated acrylic copolymer
Ionic Character	Nonionic
Specific Gravity	0.88
Flash Point	14 °C
Stability	Stable to freezing. Mix well before use.
Shelf Life	5 years

Performance

Surface Tension (dynes/cm at 25 °C)

<u>% Actives</u>	<u>Xylene</u>	<u>ButylAcetate</u>
0.1	27.1	24.6
0.5	26.6	24.3

CONTACT ANGLES IN COMMERCIALY AVAILABLE PAINTS



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Foaming

- Low to Moderate Foamer

Blender Test Foaming - Foam Volume (mL) at 25 °C
(77 °F) at 0.1% A.I. (active ingredient)

	Initial	3 min	5 min	10 min
Crude Oil Substitute*	170	50	35	25

* 85% Isopar H and 15% Mineral Oil

Solubility

- >5% in diesel fuel, mineral spirits, butyl acetate, n-heptane, toluene, xylene

DuPont™ Capstone® Repellents and Surfactants:

- Deliver more sustainable solutions with maximum performance
- Are based on 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
- Are listed on TSCA inventory
- 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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K-23707-3 (05/12) Printed in the U.S.A.