

Capstone™ FS-83

Coating Additive

Technical Information

Description

Capstone™ FS-83 is a solvent-borne additive that provides low surface tension in solvent-based paints. It is compatible with most organic solvent-based systems. The low surface tension enables better wetting, spreading and leveling to correct solvent-borne coating defects, such as fisheyes, craters, pinholes, and orange peel. When cured into a coating, it provides water and oil repellency, as well as chemical resistance, to the film.

Even at very low use rates, FS-83 can deliver excellent repellency to the film, which can be measured by water and hexadecane contact angle. The typical use rate of FS-83 for most coating applications is from 0.02–0.1% on an active ingredient (A.I.) basis. For solvent-based paints, the typical use rate is 0.05 to 0.1%.

Applications

Paints and Coatings

- Improves wetting and leveling to eliminate craters, pinholes, fisheyes, and orange peel
- Improves water and oil repellency of dried film
- Compatible with wide range of solvent-based paints, such as alkyd, 1K, and 2K polyurethane systems

Waxes and Varnishes

- Improves wetting and leveling
- Reduces cratering and other coating defects
- Increases surface water and oil repellency
- Compatible with many solvent-based waxes and polishes

Fluoropolymer and PTFE Dispersion

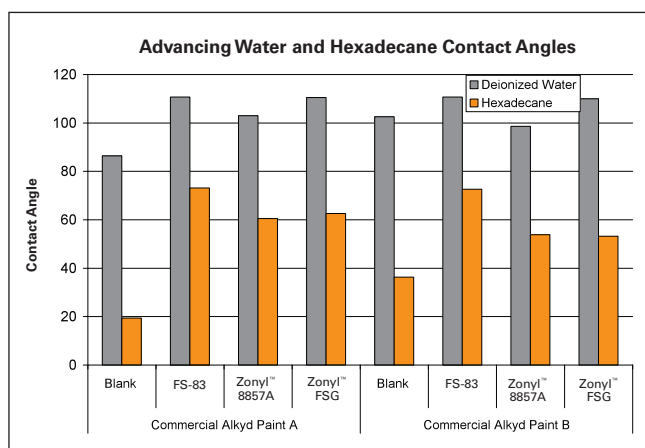
- Improved dispersion stability

Typical Properties

Appearance	Colorless to light pale liquid
Composition	35% solids in butyl acetate (BuOAc)
Structure	Partially fluorinated acrylic copolymer
Ionic Character	Non-ionic
Specific Gravity	1.0
Flash Point	28 °C (82 °F)
Stability	Product gels below 10 °C (50 °F), warming up the product to 25 °C (77 °F) will reverse gelling. Product is freeze-thaw stable. Mix well before use.
Solubility	>5% in isopar-H, mineral spirits, butyl acetate, n-heptane
Shelf Life	2 years

Performance

Water and Oil Contact Angles in Commercially Available Paints



Surface Tension (dyne/cm at 25 °C [77 °F])

% Actives	MIBK	IPA	BuAc	Xylene
0	23.9	21.6	25.1	25.6
0.05	22.4	20.7	23.3	21.7
0.1	22.9	20.7	22.9	21.1

Capstone™ Repellents and Surfactants

- Deliver maximum performance
- Regulatory and stewardship information is available upon request
- Are listed on TSCA inventory

Package Sizes

Pail-88 lb (40 kg)

For questions regarding technical data, commercial supply, and sampling:

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