

DuPont™ Fluoroguard® FSM

polymer compounding additive

Fluoroguard® FSM is a functionalized version of the DuPont series of Fluoroguard® polymer additives that acts as a surfactant. The functionality is a carboxylic acid group located on the terminal fluoromethylene group of poly(hexafluoropropylene oxide). It has a functional end group to provide chemical bonding and a fluoroalkylether tail to provide performance enhancement similar to other Fluoroguard® oils.

Like the other Fluoroguard® oils, Fluoroguard® FSM is soluble in common fluorinated solvents and insoluble in most common organic solvents. It is also nonflammable. At temperatures exceeding 190°C (374°F), a modification of the polymer terminal group begins to occur. Fluoroguard® FSM begins to lose carbon dioxide, and a new polymer with nearly identical properties is formed. This change in form allows Fluoroguard® to mix more uniformly in the polymer and then release, providing lubricity and improved performance.

Typical Properties of Fluoroguard® FSM

Viscosity, cSt at 40°C (104°F)	202–304
Appearance	Clear to hazy pale straw color
TAN-E, mg KOH/g	11–18
Pour Point, °C (°F)	–15 (5)
Density, g/mL at –9°C (15°F)	1.90
Molecular Weight	3,500–4,000

These values are typical properties and are not specifications.

**For more information or technical assistance,
call the Fluoroguard® hot line at:**

(800) 424-7502

or visit us on the Web at:

<http://www.dupont.com/fluoroguard>

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