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PolyFox ™ PF-159 Nonionic Fluorosurfactant for Aqueous, Solvent or 100% Solids Coatings and Cleaners

NEW PolyFox PF-159 is an **environmentally preferred**, **100% solids**, water-soluble nonionic fluorosurfactant based on OMNOVA Solutions' platform of oxetane polymers. This PolyFox fluorosurfactant is used in water-based, solvent-based or 100% solids coatings and inks to improve flow, leveling, surface appearance and coating and ink performance. When properly formulated, Poly**F**ox **PF-159** can replace telomer-based and other conventional fluorosurfactants. Use of Poly**F**ox **PF-159** fluorosurfactant can greatly reduce foam generation, foam stability, and air entrainment, compared to conventional fluorosurfactant technology, which can be especially interesting to ink manufacturers.

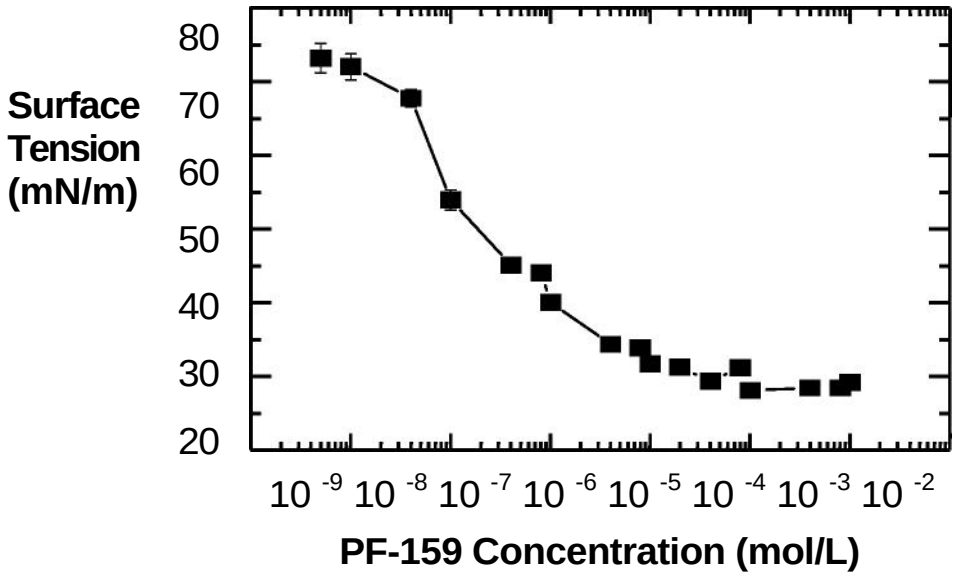
Special Features and Benefits:

- Excellent water solubility with crystal clear solution for use in water-borne systems.
- Coating friendly with no foaming tendency.
- 100% solids, no VOC, no water, no co-solvent contribution.
- Diol structure useful in aqueous, solvent or 100% solids formulations.
- Efficient- Less than 1% add-on for most applications.
- Safe- Minimal environmental, health and safety risks.

Typical Physical Properties of PolyFox PF-159

Properties	**PolyFox PF-159**
Appearance	Clear
Viscosity @ 77°F (cps) (Brookfield #21 spindle)	1220
Color	Colorless to light straw
% Non volatile (Wt)	100
Type	Nonionic Fluorinated Polyether
Solvent	None
Ionic character	Nonionic
pH	6.5 – 7.5
Specific Gravity (g/ml)	1.141
Flash Point (Pensky Martens Closed Cup)	>200°F
Surface Tension (mN/m)	28 (pure material @ 1000 ppm in distilled water)
Ross-Miles Foam Test (Foam height in mm) ASTM D1173-53 (49°C @ 1000 ppm in distilled water)	Initial: 1 After 5 minutes: 0
Solubility in water	Dispersible in all proportions
Note: Not actual product specifications	

PolyFox PF-159 Surface Tension Isotherm



Use Recommendations:

PolyFox PF-159 can be added by stirring directly into waterborne, solvent or 100% solids coatings. Typical use levels are from 0.05% to 1%, but fluorochemical systems are often concentration sensitive and each system is unique. For screening purposes, a range of concentrations should be tried. Optimum performance is often achieved at a very specific concentration and performance on either side of this optimum level - too much or too little - can interfere with the desired effect. Surface modification effects typically require somewhat higher addition levels.

If you would like samples of PolyFox PF-159 fluorosurfactant, or further information about the entire PolyFox line for aqueous, solvent or UV coating applications, or for any technical assistance with your coating formulations, please contact your nearest OMNOVA representative or call customer service at (803)377-2298, email carolyn.orr@omnova.com or visit our website at www.omnova.com.