



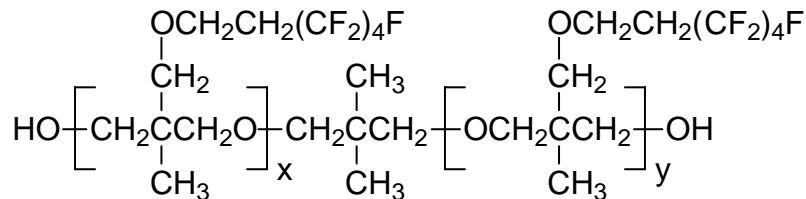
POLYFOX™

the friendly fluorosurfactant

PolyFox™ PF-7002

Fluorochemical for Improved Flow, Leveling and Surface Appearance in Solvent-Borne Coatings and for Use as a Reactive Intermediate

Generic Structure



PolyFox™ PF-7002

$$x + y \approx 4-5$$

GENERAL INFORMATION:

PolyFox PF-7002 fluorochemical is an environmentally preferred, solvent-dispersible fluorochemical based on OMNOVA Solutions' platform of poly(oxetane) polymers.

KEY FEATURES AND BENEFITS:

- **Environmentally Preferred** – Compared to certain telomer-based and other conventional fluorochemicals, PolyFox fluorochemicals have been found to not bioaccumulate, resulting in very low environmental impact.
- **Can be Used as Reactive Intermediate** – PolyFox PF-7002 can be used as a reactant in a variety of synthetic schemes including preparation or modification of polyurethanes and polyesters.
- **Low Refractive Index** – PolyFox PF-7002 has a low refractive index that can be used to modify or create optoelectronic coatings.
- **Low Foaming Characteristics** – Use of PolyFox fluorochemical results in significantly less foam development than other available fluorochemical technologies. The small amount of foam developed is short lived.
- **Outstanding Air Release and De-Aeration** – Incorporation of PolyFox fluorochemicals in coating formulations results in dramatically reduced air entrapment, thereby dramatically reducing surface defects such as pin holes. Elimination of these types of surface defects may also result in improved coating durability.
- **Improved Surface Appearance** – Incorporation of PolyFox fluorochemicals into coating formulations can result in improved coating appearance due to reduced surface defects. In spray-applied coatings, PolyFox fluorochemicals may result in reduced pock marks and craters. In roll-coat applications, their use may result in reduced surface waviness.

- **Near Water White Color** – Compared to traditional telomer-based and other conventional fluorochemical technology, PolyFox fluorochemicals are clear and uniform in appearance. Use of PolyFox fluorochemicals will not result in increased color in clear formulations.
- **Excellent Solvent Dispersability** – PolyFox PF-7002 fluorochemical is dispersible in a variety of common organic solvents including ketones, alcohols and esters.
- **Formulation Versatility** – PolyFox fluorochemicals offer formulators an environmentally preferred alternative to telomer-based and other conventional fluorochemical technology. Their unique surface activities result in an ability to perform both as a de-aerator and as a flow and leveling agent. Proper coating formulation with PolyFox fluorochemicals can result in decreased numbers of additives in formulations.

Table 1. Typical PolyFox PF-7002 Fluorochemical Physical Properties*

Property	PolyFox PF-7002
Appearance	Clear, low viscosity liquid
Viscosity #4 spindle @ 100 rpm @ 72°F (cP)	~ 1500
Color	Colorless to light straw
Non volatiles (Wt%)	0
Molecular weight (g/mol)	~ 1670 ± 200
Hydroxyl number (mg KOH/g)	67.2 ± 8
% F (w/w)	~ 46
Type	Diol
Wt % Solids	100
Wt % Water	< 0.1
Ionic character	Nonionic
Specific Gravity	11.3 lbs./gal (1.36 g/mL)
Flash Point (Pensky Martens Closed Cup)	>200°F
Surface Tension (mN/m) (1000 ppm in N-methylpyrrolidinone)	25.5
Refractive Index (Na d-line at 25°C)	1.3846

*Not actual product specifications

Learn More:

Find out how PolyFox fluorochemicals can improve appearance and performance in your formulations or create an entirely new coating. Call 888-253-5454 or email SpecialtyChem@omnova.com for samples, literature, or technical assistance or visit our website at www.omnova.com

NOTE:

Although the data supplied above is believed to be accurate, each user is advised to make an independent determination as to whether the described product(s) is/are appropriate for a particular use or application, whether such a use will comply with all applicable laws or regulations, or whether such use will infringe the intellectual property rights of third parties.



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