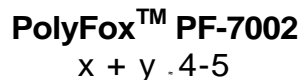
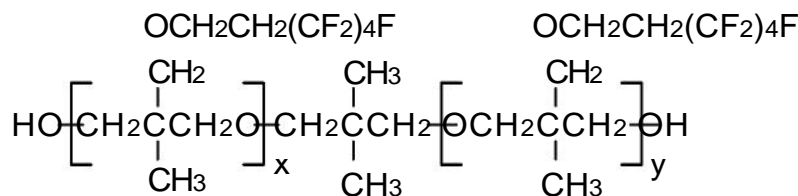


PolyFox™ PF-7002

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

Generic Structure



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 customer service at **(803) 377-2298** or email carolyn.orr@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.



OMNOVA Solutions Inc. · 1455 J. A. Cochran By-Pass. · Chester, SC 29706
Telephone (888) 253-5454 · www.omnova.com

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