

FUNCTIONAL PD-585

Cold Flow Improver and Thickener for Vegetable Oil-Based Lubricants

APPLICATION:

FUNCTIONAL PD-585 is a pour point depressant and cold flow improver for vegetable oil based lubricants. **FUNCTIONAL PD-585** is effective in hydraulic fluids, chain saw oils, pneumatic-tool lubricants, and other lubricants made from canola oil, soybean oil, or other triglyceride oils. The high viscosity of **FUNCTIONAL PD-585** also makes this product useful as a shear stable viscosity modifier.

COMPOSITION:

The active components in **FUNCTIONAL PD-585** are a proprietary mixture of copolymers.

Typical properties	
Appearance	Colorless to light yellow liquid
Odor	Mild
Specific Gravity	0.93
Lbs per Gallon	7.7
Flash Point, ASTM D92	>135°C (275°F)
Kinematic Viscosity, ASTM D445	1200 cSt at 100°C
Thickening Efficiency, 10 wt% in Canola	16.7 cSt @ 100°C
Shear Stability Index (PSSI), ASTM D6278 (10wt% in Canola)	4 SSI
20hr KRL Shear Stability, CEC L-45-A-99 (10wt% in Canola)	56%

TREATMENT LEVEL:

0.5 to 1.0 wt% **FUNCTIONAL PD-585** is usually sufficient to reduce the pour point of canola, soybean, or other low-saturate triglyceride oils and increase storage stability at low temperatures. Due to the fact, the responsiveness of triglyceride oils to wax-crystal modifiers is extremely variable, the user must determine the treatment level. See next page for sample data in canola oil and soybean oil.

FUNCTIONAL PD-585 may be used as a highly shear stable, biobased viscosity modifier for most synthetic esters, blown vegetable oils, low viscosity PAOs, and oil soluble PAG. See next page for treat rates.

HANDLING:

FUNCTIONAL PD-585 may be warmed to 100°F - 130°F to facilitate pouring. Any suitable technique can be used for blending. Store in a cool, dry area preferably indoors. See the current Safety Data Sheet before use.

This Technical Data Sheet and the Safety Data Sheet contain information believed to be accurate and reliable. No warranty is made, however, to information beyond the control of FUNCTIONAL PRODUCTS INC. The engineering and management personnel of the user are responsible for determining the suitability of this or any product for any specific application, and this information is offered to them for that purpose.

FORMULATION GUIDE:

FUNCTIONAL PD-585 Pour Point Depression in Canola and Soybean Oils

wt% PD-585	Pour Point, D97	
	Canola Oil	Soybean Oil
0.0%	-24C	-12C
0.5%	-33C	-21C
1.0%	-36C	-24C

FUNCTIONAL PD-585 Treat Rates in Canola Oil (Starting From ISO 32-36)

ISO VG	46	68	100	150	220
wt%	2.5	8	13	18.5	24

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