

### FUNCTIONAL V-235 VISCOSITY MODIFIER IN PELLET FORM

#### APPLICATION:

**FUNCTIONAL V-235** is an OCP viscosity modifier in pellet form. It is dissolved in oil to prepare an economical additive for multi-grade engine oils or an aftermarket oil treatment additive. It may also be used as an inexpensive thickener for oil to avoid blending with expensive oils like bright stocks. Customers should evaluate the polymer in their base oil for compatibility and in particular performance at low temperatures.

#### COMPOSITION:

**FUNCTIONAL V-235** is an ethylene/propylene copolymer.

Typical Properties	
Appearance	Clear to White Pellets
Thickening efficiency at 100°C	
1 wt% in ISO 32 Oil	14 cSt
10 wt% in ISO 22 Oil	1350 cSt
Shear Stability Index (PSSI) ASTM D6278	39%
CCS @-25°C (1.5 wt% in ISO 22 + 0.3 wt% PD-610)	6943

#### TREATMENT LEVEL:

Treatment levels of 0.5-2.0% are typical in industrial lubricants. The detergent-inhibitors used in formulating modern motor oils contain significant but varying levels of polymeric additives. The treatment level therefore depends on the choice of detergent package and is best determined by the user. With the addition of 0.3 wt% **PD-610**, a SAE low temperature viscosity grade of 5W can be reached depending on polymer and other additive concentrations.

#### HANDLING:

**FUNCTIONAL V-235** should be stored below 120°F (50°C); higher temperatures may cause agglomeration due to cold flow. It is a non-hazardous material; see the current Safety Data Sheet. Dissolving is best accomplished with continuous agitation at temperatures of 180-230°F (85-110°C). Higher temperatures will not affect **FUNCTIONAL V-235** but may darken the diluent oil.

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.

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