

Mechanism

Pour point depressants do not affect either the temperature at which wax crystallizes from the solution or the amount of wax that precipitates. Pour point depressants co-crystallize on the edges of the growing wax plates and get attached to the polymer side chain, and then because of the presence of the molecularly large polymer backbone, crystal growth is sterically hindered in-plane. Further growth is redirected in a perpendicular direction, resulting in the formation of more needles like crystals. Thus the usual tendency to form a three-dimensional structure based on plate like crystals is disrupted, and formation of wax gel matrices are prevented.

Description

PPD LX 440 is a pour point depressant helps to keep your automotive lubricants flowing in the cold. It provides the versatility you need to effectively treat the wide range of new generation base stocks available in the market today and thus permits product rationalization. It is highly recommended for use in a wide variety of engine oils, gear oils, hydraulic and transmission fluids.

Typical physical properties

Foam	High-viscous liquid
Color	Yellow to amber
Specific gravity @ 25°C	0,88 – 0,93
Flash point	>134°C

Typical dosages in finish lubricants

Typical addition rates are 0.1 - 0.3 % by weight.

For some gear oil formulations higher treat rates may be required, approximately 0.5 % to 1.0 % by weight.

Performance

This advanced technology is tailored to provide robust low temperature solutions across a broad range of lubricants. It is particularly effective in formulations using catalytically dewaxed base stocks and higher ethylene content OCP viscosity modifiers.

Fluidity improvement

LX 440 is also used as a fluidity improver in lubricants which must meet stringent low temperature viscosity requirements under low shear rate conditions such as engine oils, hydraulic and transmission fluids and gear oils.

Base stock solubility and compability

LX 440 is completely soluble in all new generation base stocks at any concentration. In finish lubricants they are compatible with other commonly used additives.

