



PE-100 Primary Emulsifier

PE-100 is a premium high temperature specialty modified crude tall oil in diesel base designed to form stable emulsions of water and/or brine in a variety of hydrophobic mediums including refined or crude oils, esters, ethers, alternative synthetics, mineral oils, and other miscellaneous hydrocarbons. It lowers surface tension between hydrophobic and hydrophilic layers and stabilizes the emulsion of water/brine in the hydrophobic medium. As with OBMs, the product allows for clays and other shales to be drilled with gauge hole with increased rate of penetration (ROP).

Typical loadings of PE-100 are 0.25-1.50 gallons per barrel depending on stability requirements. Synthetic or ester and ether oils may require additional loading. Temperature, salinity and divalent content can affect emulsion stability and testing is required to optimize loading. PE-200 (OBM Secondary Emulsifier) can be added in conjunction to PE-100 to allow for improved stability and better oil wetting.

Advantages & Benefits

- PE-100 form stable emulsions of water and/or brine in a variety of hydrophobic mediums.
- PE-100 lowers surface tension between hydrophobic and hydrophilic layers and stabilizes the emulsion of water/brine in the hydrophobic medium.
- PE-100 allows for clays and other shales to be drilled with gauge hole with increased rate of penetration (ROP).
- PE-100 has a temperature stability tested to 175°C.

Cost

PE-100 results in lower operational costs as a result of an increased emulsion stability, oil wetting and rate of penetration.

Compatibility

PE-100 is broadly compatible with a wide range of OBM systems, other emulsifiers and industry oil condensates.

Recommended Treatment

0.25-1.50 gallons per barrel of fluid depending on the application.

Handling

For specific instructions refer to SDS information or as illustrated on product containers.

Packaging

PE-100 is normally packaged in 5 gallon pails and 55 gallon drums.

Application	Material Properties
Suitability	Recommended as a specialty modified crude tall oil in diesel base designed to form stable emulsions of water and/or brine in a variety of hydrophobic mediums.
Pour Point / Flash Point	Lower than 21°F (-6°C) / Greater than 165°F (74°C)
% Solubility in Water	Insoluble
Recommended Treatment	0.25-1.50 gallons per barrel depending on the stability desired and the application.
Specific Gravity	0.90-0.95
Viscosity	Less than 150cP

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