

PALMESTER 1412

Biolubricant Base Oils

API Group V Synthetic Fluid

PALMESTER 1412 is a mono ester specially designed for lubricant applications. It is suitable to serve as synthetic base oil and additive to formulate metalworking fluids (MWF), greases & biodegradable lubricants.

PALMESTER 1412 is a low viscosity ester with high viscosity index characteristic. It has low NOACK volatility loss, high flash point & fire point compared to mineral oil with similar viscosity. With its excellent lubricity, low acid value and good cold temperature properties, it is ideally used in formulating neat oil & soluble oil for various metalworking operations.

PALMESTER 1412 is highly compatible with Group I, II & III mineral base oils, synthetic base oils including polyalphaolefin (PAO), naphthenic base oils, vegetable oils and other synthetic fluids. It can be easily incorporated into additives package, component additives, dispersants and solvents used in MWF's formulation.

PALMESTER 1412 is an ideal choice as blended stocks to optimise the oil's properties.

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- Excellent Lubricity
 - Excellent Viscosity Properties
 - Excellent Solvency
 - Excellent Thermal Stability
 - Biodegradable
 - Good Low-Temperature Properties
 - Sustainable
 - High Flash Point and Fire Point
 - Non-hazardous
 - Non-aromatic
 - Safe To Handle
 - Halal and Kosher Certified



Typical Properties

Test	Typical Value	Test Method
Colour	L0.5	ASTM D1500
Density @ 15°C (g/ml)	0.868	ASTM D4052
Density @ 30°C (g/ml)	0.858	ASTM D4052
Acid Value (mg KOH/g)	Max. 0.5	ASTM D1980
Cloud Point (°C)	-23	ASTM D2500
Pour Point (°C)	-24	ASTM D97
Flash Point (°C)	192	ASTM D92
Kinematic Viscosity @ 40°C (mm ² /s)	5.4	ASTM D445/ D446/ D7042
Kinematic Viscosity @ 100°C (mm ² /s)	2.0	ASTM D445/ D446/ D7042
Viscosity Index	209	ASTM D2270
Saponification Value (mg KOH/g)	174	ASTM D5558

Please contact our sales representative for more information.



Metalworking Fluids



- Soluble oil
- Cutting oil
- Rolling oil
- Forming oil
- Grinding oil
- Mould release oil
- Rust preventive fluid



Greases



- Semi synthetic and synthetic greases



Biodegradable & EAL



- Environmental acceptable lubricants

KLK OLEO in the Global Arena



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Above certification is applicable for specific product and/or plant.

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