



Extreme Pressure Industrial Oils

Physical Properties and Features:

TENA-FILM EXTREME PRESSURE INDUSTRIAL OILS are high gravity oils of 100% paraffin extraction dewaxed in the refining process to prevent gumming. In the refining stage, only the better molecules of natural paraffin crude are salvaged, leaving a well-balanced, stable chain of molecules that imparts the very maximum amount of anti-wear properties, with much greater lubricity and film strength per grade than other E.P. petroleum oils. TENA-FILM EXTREME PRESSURE OILS are therefore more versatile in application.

USES:

1. Gearing – These oils are designed for enclosed gear sets having spur, herringbone, helical, bevel, spiral and worm type gears, operation under frequent shock loading or continuous heavy loading. The oxidation rate of these oils makes them ideal for long life, free from gums and sludge that clog oil passages and gear teeth and hinder pumping.

NOTE: TENA-FILM GEAR LUBE NOS. 89 AND 914 are recommended for Hypoid gears, differentials and transmissions (not automatic) and conform to government and General Motors specifications for this service.

2. Machine Tool Ways – TENA-FILM E.P. SERIES OILS contains a proper balance of lubricity to prevent stick-slip movement of heavily loaded tables of milling machines, planners and lathes. The Cincinnati Milling Machine Company specifies the use as tackiness agent for use in their lubricant specification. We have found an objection to this adhesive additive because it picks up dirt, chips, etc., more easily, and for this reason we do not use it in our E.P. series oils.

However, in order to best serve the needs of our customers, we will manufacture any of the E.P. series grades with the adhesive additive on minimum orders of 110 gallons. The use of the latex additive is denoted by the suffix “ST” at the end of each grade number. For example: EP-300ST.

3. General purpose machine tool lubrication.
4. Meets U. S. Steel Specification 224 and A.P.I. service requirement GL-4. TENA-FILM E.P. OILS are very resistant to oxidation and are thermally stable at high temperatures providing long term sludge free performance. They pass the Turbine Oil Rust Test D-665 and ASTM D2711 Demulsibility Test. This means that the oils separate from water readily so the water contamination can be drained or centrifuged.
5. TENA-FILM E.P. OILS do not contain any lead compounds which are common in many industrial gear oils.

SPECIFICATIONS

	EP-300	EP-300-ST	EP-500	EP-500-ST	EP-700	EP-700-ST	EP-1000	EP-1400	EP-2500-ST
ISO Viscosity Grade	68	68	100	100	150	150	220	320	460
AGMA	2	2	3	3	4	4	5	6	7
Viscosity @ 100°F SUS	350	350	550	550	750	750	1200	1400	2600
Viscosity @ 210°F SUS	54.5	54.5	66	66	76	76	97	107	155
Viscosity Index, Minimum	95	95	95	95	95	95	95	95	95
Corrosion Copper Strip @ 212° F	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Timkin Test, Load Minimum lb	60	60	60	60	60	60	60	60	60
Flash, ° F.	420	420	430	430	450	450	450	470	480
Fire, ° F.	460	460	470	470	490	490	490	510	520
A.P.I. Gravity @ 60° F.	29.1	29.1	28.8	28.8	27.0	27.0	27.0	26.7	26.0
Acid No.	.55	.55	.55	.55	.55	.55	.55	.55	.55
Pour Point	-25	-25	-25	-25	-15	-15	-10	+5	+5

ST grade oils have tackiness additive

ADDITIVE TREATMENT:

- Rust inhibitor – Anti-foam agent – High Film strength E.P. additive – (sulfur – phosphorus type) – Lubricity additive
- Provides an oil film capable of adhering to hot metal surfaces.
- Prevents chatter and stick-slip of machine tool tables.
- The oil film protects against Way scoring, reduces rejects and wears in heavily loaded machine tools.
- The anti-foam agent promotes quick removal of entrapped air.
- The suffix “ST” after the grade number denotes a polymeric additive for Cincinnati Milicron Way Oil specifications.
- Contains a demulsifier to prevent Way Oil leakage from emulsifying into metal working coolants.