



TECHNICAL DATA

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Delta Supreme 414 E.P.

Delta Supreme 414 E.P. is a premium multi-Purpose, multi grade shear & thermally stable oil suitable for all types all types of industrial & automotive enclosed gear boxes with unprecedented creeping action and resistance to framing.

Excellent Oxidation Resistance – Extended Service Life.

Delta Supreme 414 E.P. is blended only from the finest severely hydro-finished 100% pure paraffin base oils which undergo extra solvent refining processes and to ensure achieving optimum quality and highest oxidation resistance. Due to the uniform molecular structure (closed & saturated) oxidation which results in oil thickening, build up of Acidic and carbon sludge is greatly Reduced giving **Delta Supreme 414 E.P.** an extended service life with superior protection and better resistance to thermal degradation.

Multi – Graded for severe wide temp range operation

Further Blended into **Delta Supreme 414 E.P.** natural high viscosity index base oil are exclusive extremely shear stable polymer type viscosity index improvers. These polymer have remarkable thermal compensation action, as they expand as temp rises, to compensate for the loss of oil viscosity and provide and provide better lubrication, yet these polymers will contract at cold start-up temp and allow the oil to follow properly and ensure effective lubrication at cold start ups.

Excellent Resistance To Thermal Degradation.

Further blended to the high viscosity index base oils, are unique and exclusive additives packs which further enhance **Delta Supreme 414 E.P.** resistance to thermal Degradation and continue to lubricate effectively at elevated temp without the formation of harmful deposits.

Better Gear & oil Cleanliness & Thermal conductivity

Delta Supreme 414 E.P. resistance to oxidation and friction of sludge and harmful deposits, help maintain gear box clean from warmish and carbon deposits which are abrasive and also reduce thermal conductivity (Cooling).

Excellent Adhesive And Cohesive Properties

Delta Supreme 414 E.P. unique additive pack enhance creeping action of oil allowing it to cover and follow all the gear train, lubricating and protecting against corrosion all moving parts in the gear box.

Excellent Resistance to foaming.

Delta Supreme 414 E.P does not foam even at high speeds and elevated temp. Foaming hinders the lubricating ability of the oil as it dramatically reduces heat transfer and enhance oxidation and sludge formation.

Foaming also increases pressure on seals and promotes seal failure.

Excellent water & moisture resistance.

Delta Supreme 414 E.P will not mix with water or emulsify and will separate from water immediately. You can simply drain the water out rather than change the oil.

Friction Reduction And Power Saving

Delta Supreme 414 E.P will reduce internal friction between gears and bearings, thus reducing power consumption and operating temp.

Cost Effective – Saves Money

Delta Supreme 414 E.P is an extremely long life lubricant that rarely requires changing.
Power savings from using **Delta Supreme 414 E.P** will cover its added cost in less than a year.

Costly **DOWNTIME** & labour hours are dramatically reduced as the need to stop and change oil is eliminated.

Delta Supreme 414 E.P meets and exceeds the following specification and manufacturers requirements: API Service Classification GL-5, MT-1, PG-2, Military Specification MIL-PRF-2105E, SAE 2306, Mack GO-H, Clark MS8 Rev-1, Ford M2C119A, M2C108C, M2C158A; General Motors Specification 9985476, 9985049; Chrysler; John Deere J11D, Rockwell Standard O-76A & O-76B; David Brown ET-19, E, Eaton's Axle Lubricant Specifications, White Motor's M50016, Volvo, Volkswagen

Typical Properties

SAE Grade	80W-140
API Gravity 60°F (ASTM D-287)	29
Specific Gravity 60°F	0.8816
Viscosity at 40°C Cst (ASTM D-445)	255-270
Viscosity at 100°C Cst (ASTM D-445)	27.00-32.00
Viscosity Index (ASTM D-2270)	118
Brookfield Viscosity (ASTM D-2983)	
@ 10°F/-12°C, cP	51,200
@ -15°F/-26°C, cP	140,000
Flash Point °F/°C (ASTM D-92)*	480°/249°
Fire Point °F/°C (ASTM D-92)*	530°/277°
Pour Point °F/°C (ASTM D-97)	-25°/-32°
Timken EP Test (ASTM D-2782)	
OK load, lbs.	65
F Z G (Four Sequence Gear Test (ASTM D-5182, A/8.3/90)	12th Stage
Falex Continuous Load (ASTM D-3233)	
Procedure A	
Failure Load, lbs.	2500
Four Ball EP Test (ASTM D-2783)	
Weld Point, kg.	315
Load Wear Index, kg.	55
Four Ball Wear Test (ASTM D-4172)	
Scar Diameter, mm	0.25
Coefficient of Friction	0.1
Oxidation Test (ASTM D-2893)	3.00%
% Viscosity Increase after 312 hrs. at 95°C	
L-60-1 Thermal Oxidation Test (ASTM D-5704)	
%Viscosity Increase	30
Foam Tendency (ASTM D-892)	0/0
Sequence I 75°F, ml	Trace
Sequence II 200°F, ml	0/0
Sequence III 75°F, ml	
Copper Strip Test, 3hrs. (ASTM D-130)	1a
Rust Test (ASTM D-665)	
Procedure A (Distilled Water)	Pass
Procedure B (Salt Water)	Pass
Demulsibility Test (ASTM D-2711)	81
Total Free Water, ml	1
% Water in Oil	Trace
Emulsion, ml	Pass