



Aeroplex 444

Extended Life Grease for

Description

Castrol Aeroplex™ 444 is a hybrid synthetic, lithium complex NLGI Grade 2 grease. It contains proprietary Castrol additives and offers excellent low temperature properties. Aeroplex 444 has enhanced anti-wear, oil separation, corrosion resistance and low temperature torque characteristics.

Application

Aeroplex 444 is an extended-life grease designed for use in aircraft airframe equipment. It was specifically developed for the Boeing Company and is approved to Boeing Specification BMS 3-34. Typical uses include roller bearings, actuator screws and other airframe equipment. This product should be used in accordance with the guidelines and maintenance practices specified by Boeing in applications requiring a BMS 3-34 grease or according to the requirements of other aircraft manufacturers.

Temperature Range Aeroplex 444 will operate over the temperature range of -100°F to a maximum of 250°F (-73°C to 121°C).

Specification Aeroplex 444 is approved to BMS 3-34.

Typical Characteristics

Name	Method	Units	Aeroplex 444
Unworked Penetration	ASTM D217 / IP 50	0.1 mm	298
Worked Penetration (60 strokes @ 25°C / 77°F)	ISO 2137 / ASTM D217	0.1 mm	309
Worked Penetration (100,000 strokes @ 25°C / 77°F) - change from 60 strokes	ISO 2137 / ASTM D217	0.1 mm	316
Low temperature Torque @ -73°C / -100°F - starting torque	ASTM D1478	N/m	0.45
Low temperature Torque @ -73°C / -100°F - torque after 60 mins	ASTM D1478	N/m	0.04
Low temperature Torque @ -73°C / -100°F with 15% water - starting torque	ASTM D1478	N/m	4.80
Low temperature Torque @ -73°C / -100°F with 15% water - torque after 60 mins	ASTM D1478	N/m	0.07
Four Ball Weld Load test - Weld Point	ISO 11008 / ASTM D2596	kgf	400
Four Ball Weld Load test - Load Wear Index (27°C / 1770 rpm)	ISO 11008 / ASTM D2596	-	61
Four Ball Wear test - Wear Scar Diameter (40 kgf / 75°C / 1200 rpm / 1 hr)	ISO 51350 / ASTM D2266	mm	0.47
Fretting Wear test	ASTM D4170	wt loss (mg)	1.6
High Temperature Bearing Life test	ASTM D3336	hrs	1754
Oil Separation (250 hrs @ 177°C / 350°F)	ASTM D6184 / FTM 321.2	% wt	3.50
Oxidation Stability - Rotating Pressure Vessel test @ 100 hrs	ASTM D942 / DIN 51808	pressure drop psi	4
Oxidation Stability - Rotating Pressure Vessel test @ 500 hrs	ASTM D942 / DIN 51808	pressure drop psi	9
Rust Test - EMCOR (synthetic seawater)	ISO 11007 / ASTM D6138	Rating	Pass
Copper Corrosion (24 hrs, 100°C / 212°F)	ASTM D4048	Rating	1b
Water Wash-out	ISO 11009 / ASTM D2164	% wt loss	3.7

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Castrol Industrial, Technology Centre , Whitchurch Hill , Pangbourne , Reading , RG8 7QR , United Kingdom

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