Product Data

Castrol Braycote 3214

Multipurpose High-temperature Full-synthetic Aircraft Grease

Description

Castrol Braycote™ 3214 is a multi-purpose high-temperature full synthetic grease, which is approved and qualified to MIL-PRF-32014. This product contains a lithium soap thickening agent formulated with a medium viscosity synthetic base oil. Special additives in combination with these key ingredients provide superior wear protection, high load carrying capacity, improved resistance to water and salt water wash out, corrosion inhibition, improved mobility at low temperatures and outstanding stability at high temperature. Castrol Braycote 3214 is recommended for use in aircraft applications with adverse conditions such as high temperature, high humidity and/or high speeds.

Temperature Range

-65°F to a maximum of 347°F (-54°C to a maximum of 175°C).

Application

Castrol Braycote 3214 was designed for use in aircraft applications requiring a water-resistant, high-speed, high load carrying capacity grease suitable for use in challenging conditions. This product is intended for use in a variety of aircraft applications including landing gear assemblies and bearings, flight controls, flap/slat systems and gear applications where water resistance and corrosion protection are required. Castrol Braycote 3214, like any other lithium thickened grease, is incompatible with clay and bentonite-based greases and should not be used for relubrication of existing components without confirmation of suitability for use from the component manufacturer and/or aircraft OEM.

Shelf Life

Castrol Braycote 3214 has a maximum recommended shelf life of seven years from date of manufacture. This shelf life assumes that the product is stored in its original unopened packaging in ambient temperature conditions and that if it exhibits any oil separation, it is gently mixed to ensure homogeneity prior to use.

Specification

Castrol Braycote 3214 is fully approved and qualified to MIL-PRF-32014.

Typical Characteristics

Test	METHOD	Units	REQUIREMENT	RESULT
Penetration Worked, 60 strokes	ASTM D217	0.1mm	265 – 320	307
Dirt Particles per cc of grease 25 - 125 microns >125 microns	FTM 3005.4		 1000 maximum None	 63 None
Low Temperature Torque, @-54°C/-65°F Starting Running, 1 hour	ASTM D1478	gm/cm	 14,000 max 2800 max	 10150 1600
Dropping Point	ASTM D2265	°C	200 minimum	260
Optimol SRV @50°C @80°C	Spec 4.5.5	N	 800 minimum 500 minimum	 > 1500 > 1500
Fretting Wear	ASTM D4170	mg	6 maximum	3.2
Anti-friction Bearing Performance, 121°C/250°F	ASTM D3336	hours	500 minimum	Pass
Oil Separation, @177ºC/350ºF	ASTM D1742	%	8 maximum	5
Oxidation Stability, Bomb Oxidation Pressure Drop @500 hrs	ASTM D942	psi	35 maximum	3.5
Corrosion prevention, Distilled Water	ASTM D1743	Pass/Fail	Pass	Pass
Water Resistance	ASTM D1264	%	15 maximum	2.7
Evaporation, weight loss	ASTM D2595	%	5 maximum	0.3
Density @20°C	ASTM D1480	gm/cc	Report	0.830

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1/28/2008, version 1.0

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