



Product Data

Castrol Braycote® 640ACMS

Grease, Perfluoroether
Heavy Duty, LOX Compatible

Description

Castrol Braycote 640ACMS is a perfluoroether based NLGI Grade 3-1/2 lubricating grease thickened with a tetrafluoroethylene telomer and containing approximately forty percent molybdenum disulfide. Castrol Fluoroclean™ X100 can be used to remove this lubricant. Refer to the data sheet for Fluoroclean X100 for information regarding this product.

Application

Braycote 640ACMS is designed for use as a LOX compatible heavy duty grease for high load bearings and sliding surface applications. It can also be utilized as an anti-seize and sealing compound for thread applications. Braycote 640ACMS is suitable for use with fuels and oxidizers such as oxygen. Perfluorinated greases, in general, exhibit excellent shelf lives due to their intrinsic inertness.

Characteristics

TEST METHOD	DESCRIPTION	RESULT
Spec	Appearance	Smooth, grey
	NLGI Grade	3.5
D 1403	Penetration, 25°C (77°F), mm ⁻¹ Worked, 60 strokes	214
Spec	Molybdenum Disulfide Content, % wt	43
D 2512	LOX Impact Sensitivity	Pass
D 2595	Evaporation Loss, % wt 22 hrs @ 204°C (400°F)	2.0

Base Oil Characteristics:

D 287	Density @ 24°C (75°F), g/mL	1.910
D 445	Kinematic Viscosity, cSt	
	@ 99°C (210°F)	26
	@ 38°C (100°F)	270
	@ 0°C (32°F)	4200
D 2270	Viscosity Index	134
D 97	Pour Point, °C (°F)	-36 (-30)
D 972	Evaporation Loss, % wt 22 hrs @ 204°C (400°F)	1
Knudsen	Vapor Pressure, torr	
	@ 38°C (100°F)	8×10^{-8}
	@ 100°C (212°F)	$<9 \times 10^{-4}$

Health, safety and environmental information are provided for this product in the Materials Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products. Castrol will not accept liability if the product is used other than in the manner or with the precautions or for the purpose(s) specified. Before using the product other than directed, please contact Castrol for consultation.

Additional Information

Temperature Range

-36°C to 204°C (-30°F to 400°F) under normal operating conditions and up to 260°C (500°F) for short durations. Lower temperature capability is possible where adequate torque is available.

Limitations

Braycote 640ACMS is compatible with all commonly used metals, plastics and elastomers. It may be adversely affected by Lewis Acids such as aluminum chloride, at elevated temperatures. Rubbing surfaces of aluminum, magnesium, or titanium alloys under certain conditions may react with this product. Such systems should be thoroughly evaluated. Surfaces must be well cleaned of organic rust inhibitors prior to grease application to insure proper lubrication. This product is not recommended for use in applications under high vacuum with loads exceeding 100,000 psi for extended periods of time.

Packaging

Braycote 640ACMS is available in 2 ounce (AVDP) syringes and 1 pound jars.

Castrol Braycote 640ACMS
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