Product Data

Alphasyn HG Range

Synthetic Gear Lubricant

Description

Alphasyn HG synthetic fluids are polyalphaolefin based, high performance lubricants formulated with specially selected additives to offer a range of fluids for use in both gear and bearing applications.

The range has been designed to offer specific performance benefits over its conventional mineral oil and synthetic fluid counterparts.

Application

Particularly suitable for applications at high operating temperatures and loadings, Alphasyn HG provides superior performance benefits including excellent thermal and oxidation stability and enhanced load carrying ability as detailed below.

Advantages

Alphasyn HG offers a wide range of performance benefits over a conventional lubricant when used in gear and bearing applications:

- Substantially extended lubricant life.
- Excellent anti-wear, extreme pressure and load carrying properties.
- Superior performance across a wide temperature range and in particular at high temperatures.
- Excellent thermal and oxidative stability.
- Low pour point and good air and water separation capabilites.

Compatible with standard seal, paint and hose material, and with Ortlinghaus multi-plate clutches.

Alphasyn HG synthetic fluids pass the standard FZG test (A/8.3/90) with a fail load stage of greater than 12 and also the more severe FZG test (A/16.6/140) at a fail load stage of 11.

Alphasyn HG range passes the ASTM D665B corrosion and ASTM D2893 oxidation tests.

Product Performance Claims

Alphasyn HG range meets the requirements of:

- DIN 51517 Part 3 - Industrial gear oil specification.
- DIN 51524 Part 2 - Industrial hydraulic oil specification.

Alphasyn HG oils are approved and recommended by major centrifuge manufacturers for gear case lubrication and meet the requirements of key marine gearbox manufacturers, including the Ortlinghaus clutch test.

Typical Characteristics

Name	Method	Units	Alphasyn HG 100	Alphasyn HG 150	Alphasyn HG 220	Alphasyn HG 320
ISO Viscosity Grade	-	-	100	150	220	320
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	kg/m³	846	848	851	854
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm²/s	98	145	218	315
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm²/s	15.0	20.9	27.4	36.1
Viscosity Index	ISO 2909 / ASTM D2270	-	160	168	162	162
Pour Point	ASTM D5950	°C (°F)	-60 (-76)	-51 (-60)	-51 (-60)	-45 (-49)
Flash Point - open cup method	ISO 2592 / ASTM D92	°C (°F)	268 (514)	272 (522)	288 (550)	290 (554)
Foam Sequence I - tendency / stability	ISO 6247 / ASTM D892	m/ml	0/0	0/0	0/0	0/0
Oxidation Stability (312hrs at 95°C) - Increase in viscosity at 100°C	ASTM D2893	%	<1	<1	<1	<1
Rust test - synthetic seawater (24 hrs)	ISO 7120 / ASTM D665B	Rating	Pass	Pass	Pass	Pass
Copper corrosion (3 hrs@100°C/ 212°F)	ISO 2160 / ASTM D130	Rating	1a	1a	1a	1a
FZG Gear Scuffing test - A/ 8.3/90	ISO 14635-1 / ASTM D5182	Failure Load Stage	>12	>12	>12	>12
FZG Gear Scuffing test - A/ 16.6/140	ISO 14635-1 (modified)	Failure Load Stage	11	11	11	11

The above figures are typical of those obtained with normal production tolerance and do not constitute a specification.

Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and the obliteration of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

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