



Product Data

ALPHASYN T RANGE

Issue Number 4
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Synthetic Lubricating System Oil

DESCRIPTION

The Castrol Alphasyn T range of high performance, fully synthetic lubricants is based upon synthetic hydrocarbons and designed for use in central lubricating systems and gearboxes operating under arduous conditions - particularly at elevated temperatures.

APPLICATION

Castrol Alphasyn T Range was originally developed in ISO 150, 220 and 320 viscosity grades for the central lubrication systems of paper-making machines. The range of viscosities available for virtually every application where a lubricating oil is placed under extreme stress, from hydraulic systems (using Alphasyn T32 and 46) through to large, slow moving gears where Alphasyn T460 would be used. The outstanding oxidation stability of Alphasyn T grades allows oil change intervals to be extended in circumstances where extreme operating conditions results in a short service life when using conventional mineral oil based lubricants and can also allow savings in more normal situations by reducing the level of maintenance required. All products in the Alphasyn T range of lubricants have very low pour points and excellent viscosity/temperature characteristics, allowing their use in low temperature as well as high temperature applications.

FEATURES

- ◆ Outstanding thermal stability and resistance to oxidation,
- ◆ High load carrying ability,
- ◆ Outstanding water and air separation
- ◆ Exceptional rust protection.
- ◆ Low Volatility
- ◆ Low foaming tendency

BENEFITS

- ◆ Long oil life, reduction in downtime
- ◆ Reduces energy losses
- ◆ Can be used in wet environments
- ◆ Longer machine component life
- ◆ Oil consumption due to evaporation reduced; viscosity does not increase in service
- ◆ Ensures constant lubricant flow



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TYPICAL PHYSICAL CHARACTERISTICS

ISO Viscosity Grade	-	32	46	68	150
Kinematic Viscosity. cSt	IP226/ASTM D445				
@ 0°C		245	385	650	1700
@ 40°C		32	46	68	150
@ 100°C		6.2	7.8	11.0	19
Viscosity Index	IP226/ASTM D2270	150	150	150	150
Relative Density @ 20 °C		0.840	0.850	0.860	0.870
Open Flash Point, °C	IP35	210	280	290	300
Pour Point, °C	IP15/ASTM D97	-54	-48	-48	-36
Foaming Tendency	IP146/ASTM D892				
Sequence 1 @ 24°C mis		0/0	0/0	0/0	0/0
Sequence 2 @ 93.5°C mis		10/0	10/0	10/0	10/0
Sequence 3 @ 24°C mis		0/0	0/0	0/0	0/0
NOACK Volatility, %	-	12	3	3	2
Water Separation	ASTM D1301				
@ 54°C, mins		5	10	15	-
@ 82°C, mins		-	-	-	15
Rust Prevention	IP135B/ASTM D665B	Pass	Pass	Pass	Pass
FZG Gear Test Failure Load	IP334	11	11	12	12+
4-Ball Wear Test, Weld Point, kg	IP239	140	140	150	160
Wear Scar, mm	-				
1 hr, 1800 rpm, 20kg load		0.32	0.30	0.30	0.28

Castrol Alphasyn T is compatible with conventional seal materials and paints and is fully miscible with mineral oil. This allows conversion of existing systems without the need for equipment modification or extensive flushing procedures as can be required with other types of synthetic lubricants.



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TYPICAL PHYSICAL CHARACTERISTICS

ISO Viscosity Grade	-	220	320	460
Kinematic Viscosity. cSt @ 0°C	IP226/ASTM D445	2500	5000	7300
@ 40°C		220	320	460
@ 100°C		26	37	48
Viscosity Index	IP226/ASTM D2270	150	160	160
Relative Density @ 20 °C		0.870	0.875	0.875
Open Flash Point, °C	IP35	300	300	300
Pour Point, °C	IP15/ASTM D97	-36	-33	-33
Foaming Tendency Sequence 1 @ 24°C mis	IP146/ASTM D892	0/0	0/0	0/0
Sequence 2 @ 93.5°C mis		10/0	20/0	20/0
Sequence 3 @ 24°C mis		0/0	0/0	0/0
NOACK Volatility, %	-	2.0	2.0	2.0
Water Separation @ 54°C, mins	ASTM D1301	-	-	-
@ 82°C, mins		20	20	25
Rust Prevention	IP135B/ASTM D665B	Pass	Pass	Pass
FZG Gear Test Failure Load	IP334	12+	12+	12+
4-Ball Wear Test, Weld Point, kg	IP239	180	230	250
Wear Scar, mm 1 hr, 1800 rpm, 20kg load	-	0.26	0.26	0.25

Health and Safety information sheets are available for all Castrol products from the address below:
Castrol (U.K.) Limited, Pipers Way, Swindon, Wiltshire SN3 1RE, England, Telephone:
Orders/Enquiries (08459)645111, Technical Enquiries (01793)452111, Fax (01793)486083

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