



Product Data

Magna™ PM S Range

Synthetic Paper Machine Oils

Description

Castrol Magna™ PM S Range (previously called Cresta™ SPM) is specially designed for use in the central lubricating systems of paper machines. The Magna PM S Range is suitable for lubricating gears, bearings and dryer cylinders operating under arduous condition and extreme temperatures at the wet and dry ends of paper machines.

These products are formulated using high quality synthetic base fluids and a carefully selected additive system to provide excellent filterability and outstanding resistance against thermal degradation, oxidation, sludge/deposit formation and corrosion as well as wear to component parts. The Magna PM S Range have very low pour points and high viscosity indices, which ensure excellent cold start properties and effective maintenance of viscosity and load carrying capacity at high operating temperatures. The excellent lubricity and the optimal oil film properties of these products make it possible to reduce energy consumption and operating temperatures and enable savings on operating costs.

Application

Magna PM S Range is recommended for the centralised lubricating systems in paper machines operating at very high temperatures. It provides excellent filterability even in those systems with ultrafine filters that are operating under very severe condition. Magna PM S Range is compatible with a wide range of commonly used seal materials including viton, polyurethane, silicone and selected grades of nitrile rubber.

They are also fully compatible with the mineral oil based lubricants so extensive flushing is not normally required during change-over.

Advantages

- Extends the life of the lubricant and the oil filters.
- Excellent resistance to the formation of deposits ensures clean operation and prolonged component life.
- Excellent water separating ability enables optimal bearing operation under conditions of high humidity and severe water contamination.
- Outstanding filterability.
- Excellent low temperature properties enables smooth cold starting and minimises the possibility of pipe line blockages.
- Optimal oil film thickness and friction-reduction characteristics enables lower operating temperatures and improved energy efficiency.
- Excellent protection against rust and the corrosion.
- Excellent thermal, oxidative and chemical stability means that system can be operated at higher speed under higher steam pressures and operating temperature.
- Reduction/elimination of unexpected shutdowns leads to reduction in the maintenance and lost-production costs.

Typical Characteristics

Name	Method	Units	PM 220 S	PM 320 S	PM 460 S
Appearance	Visual	-	Clear & Bright	Clear & Bright	Clear & Bright
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	kg/m ³	855	858	860
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm ² /s	220	320	460
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm ² /s	23.8	31.2	45.7
Viscosity Index	ISO 2909 / ASTM D2270	-	129	132	156
Pour Point	ISO 3016 / ASTM D97	°C/°F	-39/-38	-39/-38	-39/-38
Rust test - synthetic seawater (24 hrs)	ISO 7120 / ASTM D665B	-	Pass	Pass	Pass
Rust test - SKF Emcor - synthetic seawater	ASTM D6138 / DIN 51802	Rating	0	0	0
Foam Sequence I - tendency / stability	ISO 6247 / ASTM D892	ml/ml	0/0	0/0	0/0
Water Separation @ 82°C / 180°F (40/37/3)	ISO 6614 / ASTM D1401	min	15	15	20
Flash Point - open cup method	ISO 2592 / ASTM D92	°C/°F	235/445	248/478	248/478
Air Release @ 75°C / 167°F	ISO 9120 / ASTM D3427	min	8	13	-
Filterability - 'wet' test method	ISO 13357-1	Filterability Index	90 / 75	90 / 75	-
Rolling Element Corrosion test @ 140°C - 8 weeks	SKF test	Index	2	2	-
FZG Gear Scuffing test - A/8.3/90	ISO 14635-1	Failure Load Stage	10	10	10
Oil Film Ageing	SKF Test	% wt loss / Appearance	10 / No film	10 / No film	-

Subject to usual manufacturing tolerances.

This product was previously called Cresta SPM Range. The name was changed in 2015.

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10 Jun 2025

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