

## Viscogen KL

Synthetic high temperature chain lubricant

### Description

Castrol Viscogen™ KL range are thermally stable synthetic lubricants designed for high temperature lubrication in severe environments, where the use of mineral oils or conventional synthetic oils would result in excessive wear, carbonisation and residue formation. They can be used up to temperatures of +240°C/+464°F, depending on the viscosity. Viscogen KL have been developed from base fluids which form exceptionally adherent, transparent and odourless lubricating films and an additive system free of solids, metals or silicone which enhances load carrying capability and wear protection.

### Application

Viscogen KL is available in six different viscosities depending on the ambient and operating conditions. The dimensions of the chain as well as its structural shape (e.g. roller, pin, ladder chains, insertion and flat link hoisting chains) are important when selecting the right viscosity. The way the lubricant is applied must also be considered e.g. manual lubrication, drip feed lubricator, central lubrication, sump lubrication or via spray can. Viscogen KL finds use in many industrial applications, for example: High-rack storage shelves, bakery machines, paint lines, conveyor chains, tenter frames and dryers, washing plants, underfloor chains, steamers, slashers, baking ovens, slide ways, spindles, ropes, open gear wheels, plastic toothed belts and sheet-fed offset machines. Viscogen KL 23 is especially suitable for use in BOPP (Biaxially oriented Polypropylene) film stretching machines.

### Advantages

Viscogen KL has the following advantages when compared to conventional chain oils:-

- Extremely low evaporation rate, low residue formation and low smoke generation at high temperatures – enabling reduced maintenance, reduced lubricant consumption and better working environments.
- High load carrying ability under severe mechanical loads and high temperatures as well as excellent penetration on chains and wire rope strands – leading to longer chain life.
- No dripping or throwing off at high speeds or high temperatures – giving reduced lubricant consumption.
- Excellent rust protection, extraordinary oxidation resistance and no hard carbon build up - leading to longer chain life and reduced maintenance.

## Typical Characteristics

Name	Method	Units	3	9	15	23	130	300
Colour	ASTM D1500	-	Green	Green	Green	Green	Green	Green
Base Oil	-	-	Synthetic oil	Synthetic oil	Synthetic oil	Synthetic oil	Synthetic oil	Synthetic oil
ISO Viscosity Grade	-	-	32	100	220	-	-	-
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	kg/m <sup>3</sup>	948	964	947	950	930	920
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	31	99	219	249	1400	3500
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	6	12	20	23	90	190
Flash Point - open cup method	ISO 2592 / ASTM D92	°C/°F	> 230/450	230/450	> 250/480	> 240/465	> 220/430	220/430
Pour Point	ISO 3016 / ASTM D97	°C/°F	-60/-76	-51/-60	-39/-38	-39/-38	-27/-17	-12/1
Copper corrosion (3 hrs@100°C/212°F)	ISO 2160 / ASTM D130	Rating	1	1	1	1	1	1
Four Ball Wear test - Wear Scar Diameter (300N / 1 hr)	DIN 51350-3B	mm	0.6	0.5	0.4	0.4	0.4	0.4

Subject to usual manufacturing tolerances.

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