



## Product Data

# Castrol Viscogen<sup>®</sup> KL

Special synthetic oils designed for high temperature lubrication in severe environments, where the use of mineral oils or conventional synthetic oils would result in excessive wear, carbonization and residue formation. **Viscogen KL** oils are thermally stable and have excellent low-temperature flow characteristics, rendering them suitable for serving in a wide range of environments. **Viscogen KL** base fluids are selected to form exceptionally adherent, transparent, and odorless lubricating films. Through low surface tension they exhibit extraordinary penetrability into tight clearances (such as between chain rollers and side plates). An additive system free of solids, metals or silicone further enhances extreme load-carrying capability and exceptional wear prevention. These oils can also be used for high temperature gear and bearing lubrication.

### Features

- Extremely low evaporation rate, low residue formation and low smoke generation at high temperatures.
- Continuous service over 200°C/392°F, intermittent service up to 250°C/482°F
- Exceptional adhesion gives reduced lubricant consumption with virtually no dripping
- Outstanding load carrying ability under severe mechanical loads and high temperatures
- Excellent penetration on chains and wire rope strands
- Odorless, transparent and colorless in thin films
- Excellent rust protection, extraordinary aging and oxidation resistance
- Resistant to hot and cold water wash
- Retains viscosity at high temperatures (high VI)
- Compatible and fully miscible with mineral oil
- All grades are acceptable to USDA for H2 service (for use where there is no possibility of food contact)

### Uses

**Castrol Viscogen KL3 and Viscogen KL 9** for chains in deep freeze operations, bakery and cigarette wrapping machines, painting lines, underfloor chains, chains that can be lubricated with very thin oils and chains operating in dusty environment (textile “fly” lint).



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**Castrol Viscogen KL 15** for chains with oil spray lubrication, drip-feed lubricators with narrow openings of U-shaped deflections, oven chains. Silent chains in glass machines.

**Castrol Viscogen KL 23** most universal, for all central lubrication systems on chains of film stretching machines, driers, steamers and slashers in the textile industry; for all types of conveyor chains in the wood industry, vulcanization plants and paint lines; for conveyor systems in food processing machines; for all types of chains in heated equipment up to 250°C/482°F. Approved by all major tenter frame manufacturers.

**Castrol Viscogen KL 130** for drip-feed lubricators with wide cross-sections in large baking ovens, waffle baking machines, sheet-fed offset and printing machines. Also used on high temperature gears and bearings.

### Application

Follow the viscosity selection of the chain lubrication system manufacturers. If lubricant drips off, select next higher viscosity. **Castrol Viscogen KL 3, KL 23 and** are available as spray for safe and simple application. Foam produced during spraying remains until oil has penetrated into friction surface. Specially designed adjustable spray head allows accurate placement even for very narrow lubrication points such as wire ropes or conveyor chains.



## Product Data

### Typical Characteristics

	KL 3	KL 9	KL 15	KL 23	KL 130
Color	Greenish - transparent				
ISO Viscosity, GRADE	32	100	220	-	1500
Base Fluid	Synthetic				
Density, DIN 51757, g/cm <sup>3</sup> @15°C/59°F	0.954	0.967	0.948	0.950	0.930
Viscosity, ASTM D-445 @ 40°C/104°F, mm <sup>2</sup> /s	31.5	102	213	252	1600
@100°C/212°F, mm <sup>2</sup> /s	6.48	12.5	19.90	23.40	98
Viscosity, ASTM D-445, D 2161					
@ 100°F cSt/SUS	34/160	114/529	242/1123	286/1327	1848/8561
@210°F cSt/SUS	6.62/48	12.9/70	20.5/100	24.1/116	102475
Viscosity Index, ASTM D 2270	165	116	107	115	141
Pour point, ASTM D-97 °C/°F	-47/-52.6	-39/-38.2	-34/-29.2	-40/-40	-18/-0.4
Flash point, ASTM D-92, °C/°F	249/480	260/500	252/485	257/495	243/470
Fire point, ASTM D-92, °C/°F	-----	277/530	274/525	285/545	254/490
Ash Content	None	None	None	None	None

Subject to usual manufacturing tolerances.

All reasonable care has been taken to ensure that this information is accurate as of the date of printing. Nevertheless, such information may be affected by changes in the blend formulation occurring subsequent to the date of printing. Material Safety Data Sheets are available for all Castrol products. The MSDS must be consulted for appropriate information regarding storage, safe handling and disposal of a product.