

## Product Information ALTO MACHINE OILS ISO VG 10 – 1000

## Description

The Alto range of machine oils contain anti-rust and antioxidant additives (R&O) that are blended into high quality mineral oils that possess good natural lubricating properties enhanced by modern refining techniques. They have good viscosity indices and separate from water cleanly and quickly.

## **Applications**

Alto Machine Oils are a versatile range of oils that can be used wherever a straight mineral oil with modest additive treatment has been specified. Particularly recommended for industrial use in enclosed and circulating systems, oil baths, automatic lubricators, wick oilers, spray, splash and mist lubricators and all oil-lubricated bearings, machine tool headstocks, enclosed gearboxes and vacuum pumps. These oils are also suitable for all general lubrication uses and oilcan applications.

Alto 460, 680 and 1000 can also be used as steam cylinder oils when condensate recovery is required.

## **Physical Characteristics**

ISO VG Grade	10	15	22	32	46	68	100
SG at 15°C	0.868	0.870	0.870	0.871	0.874	0.880	0.888
Viscosity at 100°C, cSt.	2.76	3.40	4.06	5.30	7.00	8.39	10.90
Viscosity at 40°C, cSt.	9.52	15.75	22.3	32.5	47.0	68.2	101.0
Viscosity Index	95	95	95	95	95	95	95
Flash Point (Open) °C	150	165	194	195	218	223	230
Pour Point, °C	-35	-35	-30	-30	-20	-15	-10

ISO VG Grade	150	220	320	460	680	1000
SG at 15°C	0.896	0.895	0.900	0.905	0.910	0.930
Viscosity at 100°C, cSt.	14.1	17.8	22.0	31.1	36.5	43.9
Viscosity at 40°C, cSt.	151.2	220.1	326.0	453.0	683.5	973.0
Viscosity Index	95	95	95	95	90	84
Flash Point (Open) °C	235	230	250	290	285	300
Pour Point, °C	-10	-10	-10	-10	-7	-6

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