Mobil

Mobil Velocite™ Oil Numbered Series

Mobil Industrial , Finland

Spindle and Hydraulic Oils

Product Description

The Mobil Velocite™ Oil Numbered Series oils are premium performance products primarily designed for the lubrication of high-speed spindles in machine tools. They are also used in some critical hydraulic, circulation systems and air line oilers where the appropriate viscosity grade is selected. They are formulated from select high-quality, low viscosity base oils and additives that impart good resistance to oxidation and protection from rust and corrosion. They possess very good resistance to foaming and separate readily from water.

Features and Benefits

The Mobil Velocite Oil Numbered Series provide exceptional lubrication of close-tolerance bearings which helps keep the bearings running cool and helps maintain the precision required by many of today's critical machine tools. Although the Mobil Velocite Oil Numbered Series oils were designed for spindle bearings, they exhibit the required properties to function as low pressure hydraulic and circulating oils as long as the proper viscosity is selected. This feature can help minimise inventory costs and reduce the potential for product misapplication.

Features	Advantages and Potential Benefits
Good Oxidation Resistance	Helps reduce critical deposit formation Improves oil life
Very Good Rust and Corrosion Protection	Improves equipment life Provides increased precision long-term
Effective Water Separation	Resists emulsion formation Keeps moisture out of critical lubrication areas Allows easy removal of moisture from system reservoirs

Applications

- High speed spindle bearings in machine tools and equipment where high speeds and fine clearances are involved
- Precision grinders, lathes, jig borers and tracer mechanisms
- Mobil Velocite Oil No 3 is recommended for "zero clearance" type spindle bearings which operate with extremely close clearances
- For sleeve type spindle bearings having greater clearances, the choice of viscosity depends on the relation between clearance and spindle speed
- Low pressure hydraulic systems where appropriate viscosity is selected
- Air line oilers (Mobil Velocite Oil No. 10)
- For some sensitive instruments such as telescopes, laboratory equipment, etc.

Properties and Specifications

Property	NO 3	NO 4	NO 6	NO 8	NO 10
Grade	ISO VG 2	ISO VG 5	ISO VG 10	ISO VG 15	ISO VG 22
Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130			1A	1A	1A

Property	NO 3	NO 4	NO 6	NO 8	NO 10
Copper Strip Corrosion, 3 h, 60 C, Rating, ASTM D130	1A	1A			
Density @ 15 C, kg/l, ASTM D4052	0.802	0.822	0.844	0.854	0.862
Flash Point, Cleveland Open Cup, °C, ASTM D92	84	102	180	194	212
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445			2.62	3.28	4
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	2.1	4.83	10	15	22
Pour Point, °C, ASTM D97	-36	-15	-15	-9	-30
Rust Characteristics, Procedure A, ASTM D665	PASS	PASS	PASS	PASS	PASS
Total Acid Number, mgKOH/g, ASTM D974	0.06	0.06	0.06	0.06	0.1
Viscosity Index, ASTM D2270			98	97	95

Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobil.com
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