

VISCOPLEX® 8-450

An Efficient VI Improver for Hydraulic Lubricants

A RohMax Product



Function

Viscosity index improver and pour point depressant for hydraulic fluids.

Performance

VISCOPLEX® 8-450 provides economic VI improvement, as well as good shear stability.

VISCOPLEX® 8-450 effectively controls paraffin crystallization and enables blending to achieve hydraulic fluids with superior low-temperature viscosities and pour points. VISCOPLEX® 8-450 is designed for use in formulations containing paraffinic or blends of paraffinic and naphthenic base oils. VISCOPLEX® 8-450 is manufactured for demanding filterability and demulsification requirements. Typical addition rate: 5.8% wt for ISO VG 46, VI 175.

Composition

VISCOPLEX® 8-450 is a solution of polyalkyl methacrylate (PAMA) in highly refined mineral oil.

Physical Data

Table 1 lists representative physical properties. (These do not constitute specifications.)

Blending Efficiency

The contribution to the kinematic viscosity at 100 °C of VISCOPLEX® 8-450 in straight mineral base oils is shown in Table 2.

VISCOPLEX® Series 8 Hydraulic Fluid Viscosity Index Improvers

Table 1 Typical Physical Properties of VISCOPLEX® 8-450

Visual Appearance	Clear, free of sediment
Color (ASTM D1500)	0.5
Viscosity at 100 °C, mm ² /s (ASTM D445)	1,520
Density at 15 °C, g/cm ³ (ASTM D4052)	0.93
Flash Point, °C (ASTM D3278)	140
Shear Stability Index (P-SSI)	
(DIN 51382) 30 Passes	14
(DIN 51382) 250 Passes	21
(ASTM D5621) Sonic Test (P-SSI/wt %)	51/4.9
(CEC L-45-A-99) KRL 20h (P-SSI/wt %)	62/4.9

Table 2 Thickening Effect of VISCOPLEX® 8-450 at 100 °C

	100 N			150 N			200 N			350 N		
VISCOPLEX® 8-450, % wt	0	5	10	0	5	10	0	5	10	0	5	10
Viscosity at 100 °C, mm ² /s	4.0	6.7	10.5	5.1	8.4	13.0	6.2	10.1	15.4	8.9	14.0	20.7

Density

The typical density of VISCOPLEX® 8-450, as a function of temperature, is given in Figure 1.

Bulk Viscosity

The typical bulk viscosity of VISCOPLEX® 8-450, as a function of temperature, is given in Figure 2.

Additional Information

For additional information on product availability, performance data and Material Safety Data Sheets, please contact your RohMax account manager or Customer Service Representative.

For an overview of our entire VISCOPLEX® and VISCOBASE® product range and complete information on handling and storage, please visit the Products & Applications section on our website www.rohmax.com.

Figure 1 Density vs. Temperature

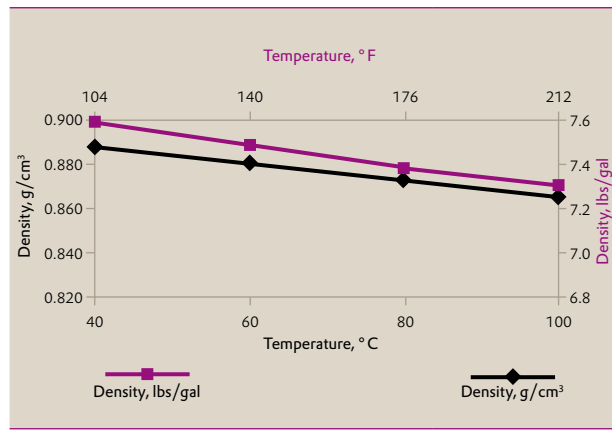
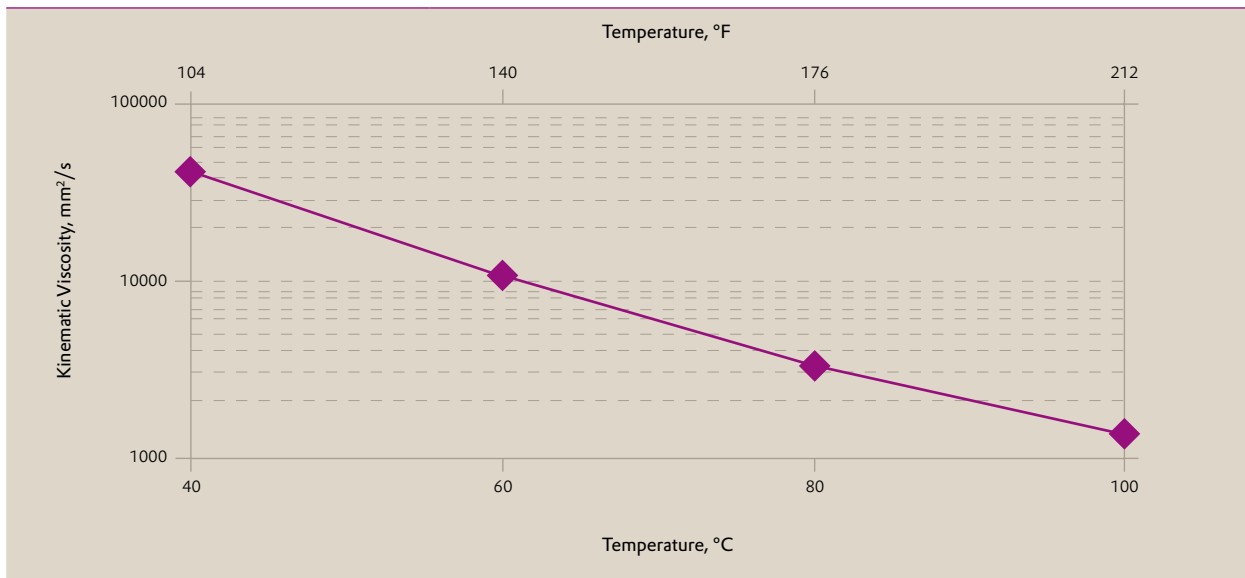


Figure 2

Kinematic Viscosity vs. Temperature



This information and all further technical advice is based on our present knowledge and experience. However, they imply no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of the customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

©03/2008 Evonik RohMax Additives GmbH.

VISCOPLEX® and VISCOBASE® are registered trademarks of Evonik RohMax Additives GmbH

Europe, Africa, Mideast:

Evonik RohMax Additives GmbH • Kirschenallee • 64293 Darmstadt • Germany • TEL: +49 6151 1809

Americas:

Evonik RohMax USA, Inc. • 723 Electronic Drive • Horsham, Pennsylvania 19044-2228 • TEL: +1 215 706 5800 • TOLL-FREE: 1 888 876 4629

Asia Pacific:

Evonik RohMax Asia Pacific Pte. Ltd. • 3 International Business Park 07-18 Nordic European Centre • Singapore 609927 • TEL: +65 6899 0080

info-rohmax@evonik.com • www.rohmax.com