

# Univis HVI

## Hydraulic Oils

### Product Description

Univis HVI is a line of premium performance anti-wear hydraulic oils characterised by their unusually high viscosity indexes. They are engineered to maintain close viscosity control over wide temperature range applications. Because of their resistance to viscosity change, Univis HVI oils are recommended for hydraulic systems that are subject to wide temperature variations. Many of these systems are sensitive to changes in viscosity of the hydraulic oil, since they depend on uniform viscosity for hydraulic accuracy. They exhibit optimum flow characteristics at sub-zero temperatures and the oils are resistant to shearing and viscosity loss so that system efficiency is maintained and internal pump leakage is minimised at high operating temperatures and pressures. These high quality hydraulic oils also provide very good anti-wear protection for high-pressure vane, piston and gear pumps. The Univis HVI oils are designed with excellent oxidation stability reducing deposit formation and improving pump and valve performance. They were developed in conjunction with the major OEM's to meet the stringent requirements of severe hydraulic systems using high pressure, high output pumps as well as handling the critical requirements of other hydraulic system components.

### Features and Benefits

Univis HVI oils provide outstanding viscosity control over a wide temperature range. Their excellent oxidation resistance allows extension of oil and filter change intervals while assuring clean systems. Their high level of anti-wear properties and excellent film strength characteristics result in exceptional equipment performance that not only results in fewer breakdowns but helps improve production capacity. Their controlled demulsibility permits the oils to work well in systems contaminated with small amounts of water yet readily separate large amounts of water. The Univis HVI oils provide the following benefits:

- Unusually high viscosity index and excellent viscosity control characteristics improves machine accuracy and reduces torque
- Very low pour points maintains excellent fluidity conditions at low temperatures
- Suitable for use in hydraulic equipment operating in very cold conditions, such as cold stores and mobile equipment operating in very cold climates
- High performance and smooth hydraulic operations derived from uniform viscosity control, fast air release, very good foam control and good water separability
- Exceptional rust and corrosion protection reduces the negative effects of moisture on system components
- Effective oxidation stability reduces deposits and improves valve performance

### Applications

- Hydraulic systems critical to uniform hydraulic oil viscosity over a wide temperature range
- Hydrostatic transmissions and dash pots
- They can also be used in fine instruments and other mechanisms where power input is limited and increases in torque due to the lubricant thickening cannot be tolerated
- To reduce deposit formation in equipment where close clearance servo-valves are used
- Systems where cold start-up and high operating temperatures are typical
- Systems requiring a high degree of load-carrying capability and anti-wear protection



- Applications where rust and corrosion protection are an asset such as systems where small amounts of water are unavoidable

## Typical Properties

Univis HVI	Univis HVI 13	Univis HVI 26
ISO Viscosity Grade		
Viscosity, ASTM D 445		
cSt @ 40°C	13.5	25.8
cSt @ 100°C	5.3	9.3
Viscosity Index, ASTM D 2270	404	376
Kinematic Viscosity @ -40°C, ASTM D 445, cSt	371	896
Copper Strip Corrosion, ASTM D 130	1A	1A
Pour Point, °C, ASTM D 97	-60	-60
Flash Point, °C, ASTM D 92	101	103

## Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

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