

## Mobil DTE Excel™ Series

# **Hydraulic Oil**

## **Product Description**

Mobil DTE Excel™ Series oils are superior performance hydraulic oils developed for use in high-speed, high-pressure piston, vane and gear pumps. They are formulated from high quality base stocks and specially selected super-stabilised additives. Their advanced technology ashless anti-wear additive system was developed to give exceptional corrosion protection for copper-based alloys in severe hydraulic applications such as high-pressure axial piston pumps. This unique additive system also gives the Mobil DTE Excel Series excellent compatibility with coolants used in metal working applications.

The Mobil DTE Excel Series oils exhibit excellent oxidation and thermal stability properties which can help to provide extended oil and filter life, as well as optimum equipment protection, thereby reducing both maintenance and product disposal costs. They were developed in conjunction with the major OEMs 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 such as close clearance servo-valves and the high accuracy numerically controlled (NC) machine tools. They are designed to work with systems operating under moderate to severe conditions where high levels of anti-wear and film strength protection are needed, yet they are formulated to work where non-anti-wear hydraulic oils are generally recommended.

#### **Features and Benefits**

The Mobil DTE Excel Series hydraulic oils exhibit outstanding high temperature performance providing an extra margin of equipment protection. Their excellent oxidation resistance and thermal stability characteristics can lead to extension of oil and filter change intervals and help to provide exceptionally clean systems and trouble-free operation. Their high level of anti-wear properties and excellent film strength characteristics can lead to exceptional equipment performance that can not only result in fewer breakdowns, but can help to 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 readily.

Features	Advantages and Potential Benefits					
	Reduced wear					
Unique Ashless Anti-wear Additives	Improved coolant compatibility					
	Protects systems using various metallurgy					
Outstanding Thermal and Oxidation Stability	Provides long oil and equipment life					
	Reduced deposits and sludge formation					
	Extends filter life					
Excellent Corrosion Protection	Prevents internal hydraulic system corrosion					
	Reduces negative effects of moisture in systems					
	Provides corrosion protection of multi-metallurgy component					
	designs					
Very Good Multi-metal Compatibility	Assures excellent performance of various components					
	Reduces requirements for additional products					
Meets a Wide Range of Equipment Requirements	One product can replace several					
	Minimises inventory requirements					
	Reduced potential for product misapplication					
Controlled Demulsibility	Protects systems where small quantities of moisture are					
	present					
	Readily separates larger quantities of water					

#### **Applications**

- Hydraulic systems critical to deposit build-up such as sophisticated Numerically Controlled (NC) machines, particularly where close clearance servo-valves are used
- Systems employing multi-metal designs in pumps and other system components
- Applications where cross-contamination of hydraulic fluids and coolants can occur
- High pressure vane, piston and gear pumps
- · Systems where very high operating temperatures are typical
- · Where small amounts of water are unavoidable
- · In systems containing gears and bearings
- Systems requiring a high degree of load-carrying capability and anti-wear protection
- Applications where thin oil-film corrosion protection is an asset such as in systems containing moisture

## **Specifications and Approvals**

Mobil DTE Excel Series meets or exceeds the requirements of:	32	46	68	100	150
DIN 51524-2 2006-09	X	Χ	X	Χ	Χ
ISO L-HM, (ISO 11158, 1997)	Χ	Χ	Χ	Χ	

### **Typical Properties**

Mobil DTE Excel Series	22	32	46	68	100	150
ISO Viscosity Grade	22	32	46	68	100	150
Viscosity, ASTM D 445						
cSt @ 40° C	22.0	32.0	46.0	68.0	100.0	150
cSt @ 100° C	4.09	5.4	6.7	8.5	11.10	14.5
Viscosity Index, ASTM D 2270	97	97	97	97	97	94
Density 15° C, ASTM D 4052, kg/L	0.8705	0.8725	0.8765	0.8825	0.8845	0.889
Copper Strip Corrosion, ASTM D 130, 3 hrs @ 100° C	1A	1A	1A	1A	1A	1A
Rust Characteristics, ASTM D 665A	Pass	Pass	Pass	Pass	Pass	Pass
FZG Gear Test, DIN 51345, Fail Stage	-	12	12	12	12	12
Pour Point, °C, ASTM D 97	-33	-33	-33	-33	-24	-24
Flash Point, °C, ASTM D 92	212	222	226	236	230	230
Foam Sequence I, II, III, ASTM D 892, ml	20/0	20/0	20/0	20/0	20/0	20/0

#### **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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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 <a href="https://www.exxonmobil.com">www.exxonmobil.com</a>

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