Mobil

Mobil DTE 10 Excel™ Series

Premium Quality Hydraulic Oils

Product Description

Mobil DTE 10 Excel™ Series are high performance anti-wear hydraulic oils specifically designed to meet the needs of modern, high pressure, industrial and mobile equipment hydraulic systems.

The Mobil DTE 10 Excel Series is constructed from selected base oils and a proprietary additive system to provide well balanced performance in a range of applications. The products exhibit outstanding oxidation and thermal stability allowing long oil life and minimized deposit formation in severe hydraulic systems using high pressure, high output pumps. The innovative ultra keep clean performance protects critical hydraulic system components from malfunction, such as tight tolerance servo and proportional valves found in many modern hydraulic systems. The shear stable, high viscosity index allows for a wide operating temperature range maintaining maximum hydraulic efficiency and component protection at both low and high temperatures. Outstanding air release properties provide an added measure of protection in systems with low residence time helping to prevent cavitation damage and micro dieseling. The carefully selected base oil and additives allow passing results of acute aquatic toxicity testing (LC-50, OECD 203) and the zinc free anti-wear system provides a high degree of protection in gear, vane and piston pumps while also minimizing deposit formation.

Formulated with extensive laboratory and in-service field testing, the Mobil DTE 10 Excel series can help provide quantifiable increases in hydraulic efficiency compared to other Mobil™ hydraulic oils. This can translate to reduced power consumption or increased machine output, resulting in monetary savings.

In controlled laboratory efficiency testing, Mobil DTE 10 Excel was measured to provide up to a six percent improvement in hydraulic pump efficiency compared to Mobil DTE 20 when operating in standard hydraulic applications.

In additional laboratory and in-service field demonstrations conducted on a wide range of modern hydraulic systems, the Mobil DTE 10 Excel series demonstrated, compared to Mobil conventional hydraulic fluids, exceptional oil life, outlasting these fluids by up to three times, while maintaining outstanding hydraulic system cleanliness and component protection. Mobil DTE 10 Excel also demonstrated the value of its high viscosity index and outstanding shear stability by operating successfully in temperatures as low as -34°C and by maintaining ISO viscosity grade.

Mobil DTE 10 Excel has also been tested in standard vane pumps under controlled conditions directly against competitive products. At the end of the 30 minute test, Mobil DTE 10 Excel resulted in less system heat generation and the system temperatures were measured to be 6°C-7°C less than certain competitive products run under identical conditions.

The energy efficiency of Mobil DTE 10 Excel relates solely to the fluid performance when compared to conventional Mobil-branded hydraulic fluids. The technology used allows up to 6% increase in hydraulic pump efficiency compared to Mobil DTE 20 series when tested in standard hydraulic applications under controlled conditions. The energy efficiency claim for this product is based on test results on the use of the fluid conducted in accordance with all applicable industry standards and protocols.

Features and Benefits

The Mobil DTE 10 Excel Series hydraulic oils provide outstanding hydraulic system efficiency; ultra keep clean performance, and a high degree of fluid durability. The hydraulic efficiency feature can lead to reduced energy consumption

for both industrial and mobile equipment, reducing operating costs and improving productivity. Their excellent oxidation and thermal stability can help to extend oil and filter change intervals while helping to ensure clean systems. Their high level of anti-wear properties and excellent film strength characteristics result in a high degree of equipment protection that not only results in fewer breakdowns but helps improve production capacity.

Features	Advantages and Potential Benefits
Excellent Hydraulic Efficiency	Potentially reduced energy consumption or increased system responsiveness
Ultra Keep Clean Performance	Reduced system deposits leading to reduced machine maintenance and increased component life
Shear Stable, High Viscosity Index	Sustained component protection over a wide temperature
Oxidation and Thermal Stability	Extends fluid life even under harsh operating conditions
Good compatibility with elastomers and seals	Long seal life and reduced maintenance
Anti-wear properties	Helps reduce wear and protects pumps and components for extended equipment life
Excellent Air Separation Characteristics	Helps prevent aeration and cavitation damage in low residence time systems
Multi metal compatibility	Helps ensure excellent performance and protection with a wide variety of component metallurgy

Applications

- Industrial and mobile equipment hydraulic systems operating at high pressures and temperatures in critical applications
- Hydraulic systems subject to deposit build-up such as sophisticated Computer Numerically Controlled (CNC) machines, particularly 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
- Machines employing a wide range of components using various metallurgy

Specifications and Approvals

Mobil DTE 10 Excel Series meets or exceeds the requirements of:	15	22	32	46	68	100	150
DIN 51524-2: 2006-09	X	X	X	X	X	X	X
DIN 51524-3: 2006-09	X	X	X	X	X		
ISO 11158 L-HV	X	X	X	X	X		
JCMAS HK VG32W (JCMAS P 041:2004)			X				
JCMAS HK VG46W (JCMAS P 041:2004)				X			
Bosch-Rexroth RE 90220-01			X	X	X		
Arburg				X			
Krauss-Maffei Kunststofftechnik				X			

Mobil DTE 10 Excel Series has the following builder approvals:	15	22	32	46	68	100	150
Denison HF-0			X	X	X		
Eaton Vickers 694 (encompasses former I-286-S, M-2950-S or M-2952-S)			X	X	X		
Frank Mohn, Framo hydraulic cargo				X			

Frank Mohn, Framo hydraulic cargo pumping	X			
MAG IAS, LLC	P-70	P-69		
ORTLINGHAUS-WERKE GMBH ON 9.2.10	X	X	X	X
STROMAG AG TM-000 327		X		

Typical Properties

Mobil DTE10 Excel	15	22	32	46	68	100	150
ISO Viscosity Grade	15	22	32	46	68	100	150
Viscosity, ASTM D 445							
cSt @ 40º C	15.8	22.4	32.7	45.6	68.4	99.8	155.6
cSt @ 100º C	4.07	5.07	6.63	8.45	11.17	13.00	17.16
Viscosity Index, ASTM D 2270	168	164	164	164	156	127	120
Brookfield Viscosity ASTM D 2983, cP @ -20 °C			1090	1870	3990	11240	34500
Brookfield Viscosity ASTM D 2983, cP @ -30 °C			3360	7060	16380	57800	
Brookfield Viscosity ASTM D 2983, cP @ -40 °C	2620	6390	14240	55770			
Tapered Roller Bearing (CEC L-45-A-99), % Viscosity Loss	5	5	5	7	11	7	7
Density 15º C, ASTM D 4052, kg/L	0.8375	0.8418	0.8468	0.8502	0.8626	0.8773	0.8821
Copper Strip Corrosion, ASTM D 130, 3 hrs @ 100º C	1B	1B	1B	1B	1B	1B	1B
FZG Gear Test, DIN 51354, Fail Stage	-	-	12	12	12	12	12
Pour Point, ºC, ASTM D 97	-54	-54	-54	-45	-39	-33	-30
Flash Point, ºC, ASTM D 92	182	224	250	232	240	258	256
Foam Sequence I, II, III, ASTM D 892 , ml	20/0	20/0	20/0	20/0	20/0	20/0	20/0
Dielectric Strength, kV, ASTM D877	45	54	49	41			
Acute Aquatic Toxicity (LC-50, OECD 203)	pass	pass	pass	pass	pass	pass	pass

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 www.exxonmobil.com
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