MULTI-VISCOSITY ASHLESS HYDRAULIC OIL

Cost-Effective, High-Performance Solution

DEVOTED TO PROTECTION®

Multi-Viscosity Ashless Hydraulic Oil is designed to provide an extra measure of protection at a lower cost compared to other multi-viscosity oils. It features a high viscosity index for superior performance in hot and cold temperatures, reducing the need for seasonal change-outs. Multi-Viscosity Ashless Hydraulic Oil offers excellent wear protection for pumps and motors, while its ashless formulation is safer for the environment. It is compatible with other hydraulic oils, providing a safe option as a top-off oil. It is priced to help operators save money while improving performance.

FEATURE	BENEFIT
Highly compatible with zinc and non-zinc hydraulic oils	Simple to use and eases worries over compatibility issues
High viscosity index	Delivers excellent high- and low-temperature performance
Outstanding anti-wear protection, as demonstrated by high FZG anti-scuffing and pump wear test results	Protects against pump and motor wear for long life and reduced maintenance
Readily separates from water	Eases water removal and improves filterability
Doesn't contain heavy metals	Safer for the environment

TYPICAL TECHNICAL PROPERTIES AMSOIL Multi-Viscosity Ashless Hydraulic Oil			
	HMVG ISO 22	HMVH ISO 32	HMVI ISO 46
ISO VG (ASTM D2422)	22	32	46
VK 100°C cSt (ASTM D445)	5.8	6.9	9.0
VK 40°C cSt (ASTM D445)	23.5	32.3	49.4
Viscosity Index (ASTM D2270)	202	181	165
SpGr – (ASTM D1298)	0.8413	0.8483	0.8555
Density – lb/gal (ASTM D1298)	7.005	7.064	7.124
Flash Point °C (°F) (ASTM D92)	200 (392)	216 (421)	228 (442)
Fire Point °C (°F) (ASTM D92)	222 (432)	240 (464)	252 (486)
Pour Point °C (°F) (ASTM D97)	-52 (-62)	-50 (-58)	-44 (-47)
Four-Ball Wear Test (ASTM D4172)			
(40 kg, 1200 rpm, 75°C, 60 min.)	0.47	0.46	0.43
Copper Strip Corrosion Test (ASTM D130)	1A	1A	1A
Foam (ASTM D892)			
Sequence I, II, III Test End	10/0,40/0,10/0	10/0,40/0,10/0	10/0,40/0,10/0
Demulsibility (ASTM D1401) Oil/Water/Cuff (min)	40/40/0 (15)	40/40/0 (15)	40/40/0 (15)
FZG A/8, 3/90, Load Stage Fail	-	>12	>12



APPLICATIONS & SPECIFICATIONS

Use the correct viscosity grade of AMSOIL Multi-Viscosity Ashless Hydraulic Oil in high- and low-pressure gear, vane and piston stationary and mobile hydraulic systems, including those with bronze metallurgy. It is recommended for all types of applications, including wind turbine systems, requiring the following industry and equipment specifications:

	ISO 32	ISO 46
Parker Hannifin HF-0, HF-1, HF-2	Χ	Χ
DIN 51524 Part 3	Χ	Χ
Vickers I-286-S, M-2950-S	Х	Х

HEALTH & SAFETY INFORMATION

For recommendations on safe handling and use of these products, please refer to the Safety Data Sheet (SDS), which is available upon request through the AMSOIL Wind Group at windsalesgroup@amsoil.com or (715) 399-6305.

COMPATIBILITY

AMSOIL Multi-Viscosity Ashless Hydraulic Oil is compatible with conventional and synthetic lubricants, including brands popular in wind turbine operations.

AMSOIL Multi-Viscosity Ashless Hydraulic Oil Compatibility Chart			
Rando WM 32	X		
Shell S2 V32	Χ		
Mobil DTE 10 Excel	X		
Shell Tellus S4 VX	Χ		
Castrol Hyspin AWH-M	Χ		
Castrol Hyspin AWH-M (Superclean)	Χ		

See your wind representative for specific compatibility data for these and other lubricants.

VANE PUMP TEST

AMSOIL HMVH ISO VG 32 hydraulic oil exceeds the vane pump wear requirements of DIN 51524 Part 3.



Vane Pump Test Results	Loss, mg	Allowed Loss, mg (DIN 51524 Part 3)
Ring	3.7	≤120 mg
Vane	3.8	≤ 30 mg

RECOMMENDATIONS AND CONCLUSIONS

Recommended for use in mobile and stationary systems requiring the listed specifications.