Powerflow™ AW Hydraulic Oil

Powerflow AW Hydraulic Oil is a premium quality antiwear hydraulic oil developed for use in a wide variety of industrial and mobile hydraulic systems operating under high-pressure, high-temperature conditions. It is formulated to provide enhanced wear protection and deposit control for severe service applications. It is particularly recommended for use in plastic injection molding machines where deposit control in the hydraulic circuit of the electro-pneumatic servo valves is essential for trouble-free operation.

Powerflow AW Hydraulic Oil is formulated to provide excellent wear protection for hydraulic pumps and motors, and to protect hydraulic system components against rust and corrosion. It has excellent oxidation resistance and thermal stability at high temperatures to minimize deposit formation and provide long service life. It has excellent water-separating properties to minimize the formation of emulsions, and is resistant to excessive foam buildup that can cause poor or sluggish hydraulic system response.

Powerflow AW Hydraulic Oil meets the performance requirements of all major hydraulic pump manufacturers, and is recommended for use in all types of high-pressure, high-speed hydraulic pumps.

Applications

- Plastic injection molding machines
- Automated machine tools
- Elevators, hoists, presses and floor jacks
- Marine cargo winches and steering systems
- Mobile construction equipment
- Service station lifts
- Air tools and other pneumatic equipment lubricated through air line lubricators
- Chain drives
- Electric motor bearings

Powerflow AW Hydraulic Oil meets the requirements of the following industry and OEM specifications:

- Bosch Rexroth RE 90 220
- Denison Hydraulics HF-0, HF-1, HF-2
- DIN 51524 Part 2, Antiwear Hydraulic Oils, Type HLP
- German Steel Industry SEB 181222
- ISO 11158:1997, Family H (Hydraulic Systems), Type HM

Premium Antiwear Hydraulic Oil For Plastic Injection Molding Machines

Contact Information

U.S. Customer Service:
1-800-822-6457

Technical Hot Line:
1-800-766-0050

International Customer Service:
+1-832-486-3363
+1-832-486-3870

E-mail address:
lubricants@conocophillips.com

- U.S. Steel 127
- Vickers (Eaton) M-2950-S, I-286-S

Features/Benefits

- Outstanding performance in plastic injection molding machines
- Excellent wear protection for hydraulic pumps and motors
- Excellent oxidation resistance and thermal stability
- Excellent deposit control
- Protects against rust and corrosion
- Excellent water-separating properties
- Good foam resistance
- Good low-temperature properties for cold start-ups

Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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Typical Properties

ISO Grade	32	46	68	100
Specific Gravity @ 60°F	0.859	0.865	0.869	0.872
Density, lbs/gal @ 60°F	7.16	7.21	7.24	7.27
Color, ASTM D1500	0.5	0.5	0.5	0.5
Flash Point (COC), °C (°F)	216 (421)	221 (430)	238 (460)	254 (489)
Pour Point, °C (°F)	-37 (-35)	-34 (-29)	-34 (-29)	-29 (-20)
Viscosity,				
cSt @ 40°C	32.0	46.0	68.0	100
cSt @ 100°C	5.4	6.8	8.7	11.3
SUS @ 100°F	165	237	353	522
SUS @ 210°F	44.4	49.0	55.5	65.0
Viscosity Index	103	103	99	98
Acid Number, ASTM D974, mg KOH/g	0.60	0.60	0.60	0.60
Copper Corrosion, ASTM D130	1a	1a	1a	1a
Demulsibility, ASTM D1401, minutes to pass	10	10	10	10
Foam Test, ASTM D892	Pass	Pass	Pass	Pass
FZG Scuffing Test, ASTM D5182,				
Failure Load Stage	12	12	12	12
Oxidation Stability,				
TOST, ASTM D943-04a, hours	>7,400	>7,400	>7,400	>7,400
RPVOT, ASTM D2272, minutes	>300	>300	>300	>300
Rust Test, ASTM D665 A&B	Pass	Pass	Pass	Pass
Zinc, wt %	0.066	0.066	0.066	0.066

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via *http://w3.conocophillips.com/NetMSDS*.

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