Clarity® Synthetic Hydraulic Oil AW

Ultra high performance synthetic hydraulic oil

Product Data Sheet

Product description

Clarity Synthetic Hydraulic Oils AW are a range of ultra high performance hydraulic fluids, designed with synthetic base stocks and an ashless, zinc-free additive system. Clarity Synthetic Hydraulic Oils AW promote high temperature oxidation resistance, rapid water separation, wear, rust and corrosion protection.

Clarity Synthetic Hydraulic Oils AW offer a very high viscosity index (VI) to help improve hydraulic response time across a wide temperature spectrum.

Clarity Synthetic Hydraulic Oils AW are designed to offer robust protection to mobile and stationary hydraulic equipment in both industrial and environmentally sensitive environments.

Customer benefits

- Ultra high performance ashless design promotes high level wear protection, rust and corrosion resistance, reducing downtime
- Robust synthetic base stock technology contributes oxidation resistance and increased service life at high operating temperatures
- Advanced synthetic formulation offers hydrolytic stability, rapid water separation performance, foam suppression and filterability
- Very low acute aquatic toxicity to both fish and invertebrates based on tests of water accommodated fractions
- Ashless formulation facilitates conventional recycling programs, offering improved environmental protection
- High VI performance promotes wear protection across a wide temperature spectrum – from cold starts to high temperature operation
- Multi-viscosity properties help lessen the need to change viscosity grades in line with seasonal variations
- High VI design aids improved hydraulic response times across a wide operating temperature range

Product highlights:

- Ultra high performance oxidation and wear resistance
- Rust and corrosion protection
- Hydrolytic stability, rapid water separation, foam suppression and filterability
- Very low acute aquatic toxicity
- Environmental protection
- Wide temperature performance and protection
- Selected specification standards include:
  - Arburg
  - ASTM
  - Bosch-Rexroth
  - Cincinnati Machine
  - DIN
  - Eaton Vickers
  - Frank Mohn
  - ISO
  - Krauss-Maffei Kunststofftechnik
  - Vestas

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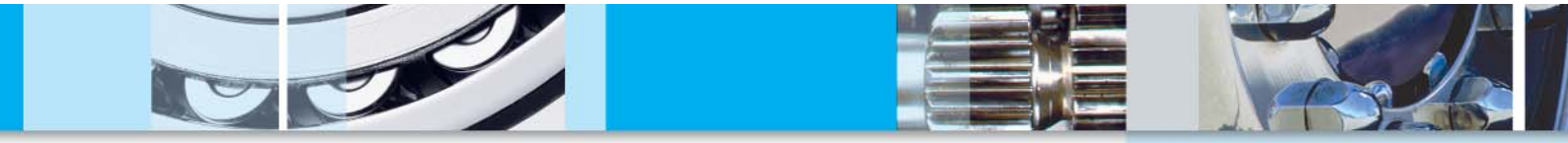
Our Family of Brands



- Reliable low temperature fluidity contributes protection at temperatures as low as -40°C
- Ashless, zinc-free design promotes high performance protection in vulnerable yellow metal components, reducing maintenance

Applications

- Clarity Synthetic Hydraulic Oils AW are designed to offer effective protection to both mobile and stationary hydraulic vane, piston and gear-type pumps in both high-performance industrial applications and environmentally sensitive areas
- Clarity Synthetic Hydraulic Oils AW are designed to meet or exceed the performance requirements of conventional anti-wear hydraulic oils, in severe, high-output applications such as axial piston pumps, while offering an additional level of safety in case of leaks or incidental discharge to the environment
- Many hydraulic systems are required to operate in environmentally sensitive areas where leaks or spills of hydraulic fluid may result in contamination of the soil or nearby waterways. Conventional anti-wear hydraulic oils are formulated with metal-containing performance additives which can persist in the environment in the event of leaks
- The anti-wear performance of Clarity Synthetic Hydraulic Oils AW makes them suitable for high performance industrial applications utilising axial piston pumps where pressures may exceed 5000 psi
- High level of oxidation stability is especially applicable in high efficiency (high speed, high temperature, high output) applications where severe stress is placed on the hydraulic fluid

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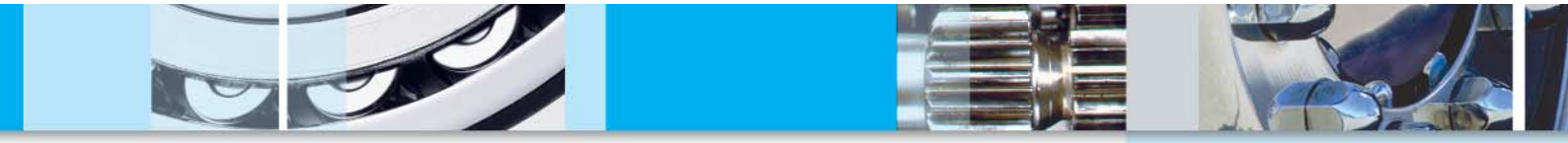

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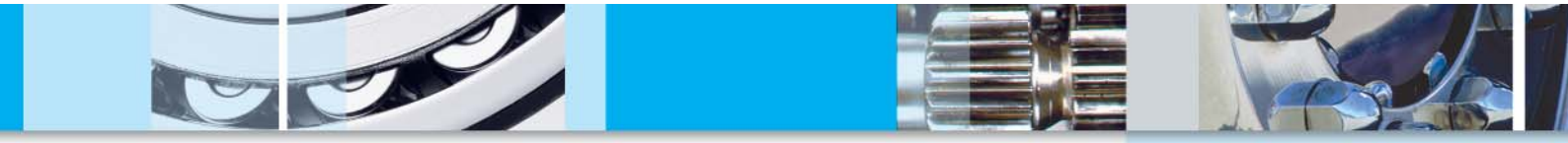
Approvals, performance and recommendations

Performance

Clarity Synthetic Hydraulic Oil AW meets or exceeds the following industry or manufacturer's requirements:

	32	46	68
• DIN 51524-3 (HVLP, 2006, pt. 3)	X	X	X
• ISO 11158 L-HV	X	X	X
• Vestas 0000-2843	X		
• ASTM D6158, HV°	X	X	X
• Eaton Vickers 35VQ25A, M-2950-S, I-286 S	X	X	X
• Cincinnati Machine P70		X	
• Cincinnati Machine P69			X
• Cincinnati Machine P68	X		
• Frank Mohn, Framo hydraulic cargo pumping		X	
• Bosch-Rexroth RD/RE 90220-01	X	X	X
• Arburg		X	
• Krauss-Maffei Kunststofftechnik		X	



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Typical test data

CLARITY SYNTHETIC HYDRAULIC OIL AW	TEST METHODS	RESULTS		
Viscosity Grade		32	46	68
Product Code		520365	520366	520367
Kinematic Viscosity, 40°C, mm^2/s	ASTM D445	32.5	46.5	68.0
Kinematic Viscosity, 100°C, mm^2/s	ASTM D445	7.0	9.3	11.4
Viscosity Index	ASTM D2270	186	183	162
Density at 15°C, kg/l	ASTM D1298			
Flash Point, COC, °C	ASTM D92	228	230	218
Pour Point, °C	ASTM D97	-48	-42	-45
Copper Corrosion, 3h/150°C	ASTM D130	1B	1B	1B
TAN, mg KOH/g	ASTM D664	0.33	0.33	0.33
Dielectric Strength, kV	ASTM D1816	>35	>35	>35
FZG Gear test, fail Stage	DIN 51 354	11	≥12	≥12

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

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