MAK HYDROL AW

Industrial antiwear hydraulic fluid for superior performance

MAK Hydrol AW range is a group of premium quality, transparent and antiwear hydraulic oils. They are blended from hydro-processed, high viscosity index base oils with carefully selected antiwear and other additives. These oils are designed to operate over a wide range of working conditions including low load and severe high load conditions. High rate of water separation, exceptional hydrolytic stability, anti-foam and cleanliness allow efficient operation of the system. These oils ensures high level of antiwear property and film strength.

Grades: MAK Hydrol AW range is available in the following ISO VG grades – **32, 46** and **68**

Applications:
MAK Hydrol AW range is recommended for hydraulic power systems and a wide variety of circulation systems of industrial and automotive equipment. They are suitable for precision hydraulic systems requiring very high control of fluid viscosity. They are also used in general manufacturing, power and metal equipment. MAK Hydrol AW fluids are compatible with seal materials and paints normally specified for use in hydraulic systems with mineral oils.

Performance/ Benefits:
Superior Oxidation Stability – outstanding resistance to the effects of oxidising agents. Resists sludge and deposit formation. Minimises filter choking and valve sticking. Longer operating life and reduction in operating cost.

Good Thermal Stability – provides good resistance to thermal break down to offer optimum life and performance.

Antiwear Protection – excellent protection to the pump, valve and other system components. Operates on a wide range of load conditions.

Anti-foam – allows precision control and high pump pressures.

Excellent Demulsibility – the rate of water separation from oil is very high.

High Film Strength – formulation ensures oil film even at a very high load. Protects the moving parts from wear.

Rapid Air Release – ensures release of entrapped air from oil to offer superior performance of the control mechanism in the system.

Excellent Hydrolytic Stability – resists water absorption and the chemical decomposition of the oil in the presence of water. Protects from acid corrosion and allows longer oil life.

Specification:
- IS 3098:1983 (Reaffirmed 2014)
- IPSS: 1-09-022
- IS 10522:1983 (Reaffirmed 2014)
- Vickers V-104C Vane Pump Test
- DIN 51524 Part 1 HL type

Storage & Handling:
The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing. Shelf life is 5 yrs. under protected storage conditions.

Health & Safety:
They are unlikely to be hazardous when properly used in recommended applications. Contamination of the oil from other oils, greases, chemicals, dirty water etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended.

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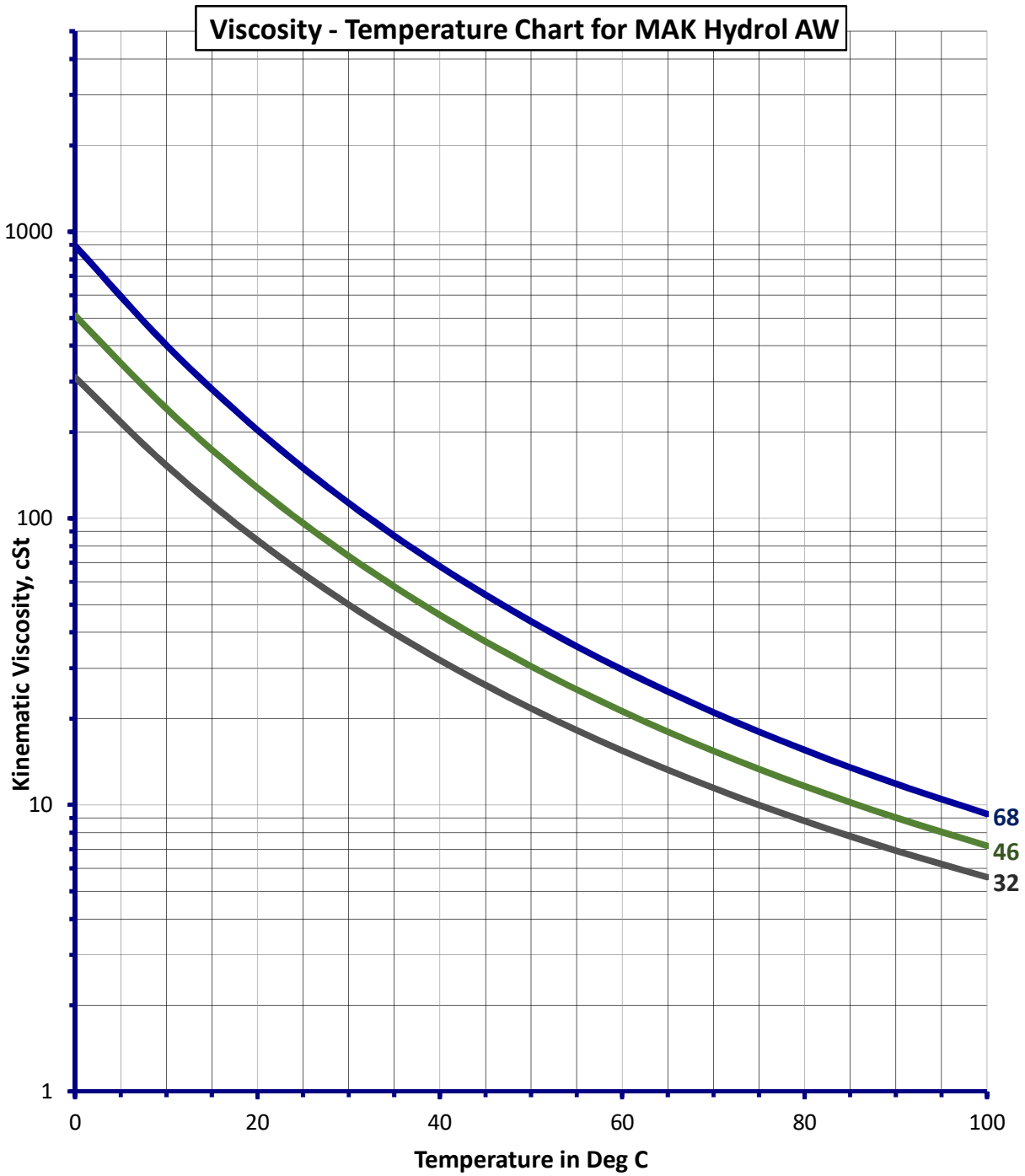
Typical Physico-Chemical Data: MAK Hydrol AW

Characteristics	Method	32	46	68
Appearance	Visual	Clear	Clear	Clear
Density, g/cc @15^{O}C	ASTM D1298	0.852	0.855	0.860
Kinematic Viscosity @40^{O}C, cSt	ASTM D445	32.2	46.5	68.3
Kinematic Viscosity @100^{O}C, cSt	ASTM D445	5.65	7.21	9.39
Viscosity Index	ASTM D2270	115	115	115
Flash Point, COC, ^{O}C	ASTM D92	220	226	238
Pour Point, ^{O}C	ASTM D97	-12	-12	-12
Copper Corrosion, 100^{O}C, 3 hrs.	ASTM D130	1a	1a	1a
Foaming Characteristics/ Stability Sequence I/ II/ III	ASTM D892	NIL	NIL	NIL


Viscosity - Temperature Chart for MAK Hydrol AW
Kinematic Viscosity, cSt
1000
100
10
1
0
20
40
60
80
100
Temperature in Deg C
68
46
32