

HYDRO S

ZINC-FREE HYDRAULIC FLUID
ISO GRADE HM

220017-220018-220019-220020-220021/01.24

Rev. 4

DESCRIPTION & APPLICATIONS

HYDRO S is suitable for all hydraulic systems requiring a zinc free fluid, including vane, screw or gear pumps and operating up to 350 bar.

HYDRO S is a fluid which meets the specifications of the manufacturer NETSTAL, who requires zinc free oil, ISO grade 68, for the lubrication of its injecting plastic presses.

HYDRO S meets the specifications of manufacturer of injection presses ENGEL in grade 46.

HYDRO S can also be used for lubrication of moderately loaded spur gears.

Approval
Engel Presses

ADVANTAGES

- Good level of filterability, even in water occurrence.
- Due to the exceptional filterability HYDRO S keeps filterable in the presence of water, only the impurities are stopped (no loss of additives).
- High resistance to oxidation presents the advantage of an increased long-life of the operating fluid at full length of its use.
- Its low pour point enables to lower the using temperature threshold
- Total tolerance versus seals.

PERFORMANCES

Satisfies to the following specifications:

CINCINNATI P68(ISO32)/P69(ISO68)/P70(ISO46)

DENISON HF0

DIN 51524 Teil 2 HLP

ENGEL Presses (grade 46)

ISO 6743 HM

LVD ISO (grades 46 and 68)

NETSTAL Presses (grade 68)

NFE 48600 HM

NFE 60200 HM

HYDRO S

ENVIRONMENT, HEALTH & SAFETY

Please consult also the Safety Data Sheet about how to manipulate and to stock the product as well as to learn about the first aid measurements in case of accident.

Elimination after use must be made in conformity with the local rules in force about used oils disposal. When needed, Safety Data Sheet can be obtained upon request.

Conservation of the product: 3 year(s) in closed container and sheltered.

PROPERTIES

CHARACTERISTICS	UNITS	METHODS	TYPICAL DATA				
ISO VG	-	-	15	22	32	46	68
Density at 15°C	kg/m ³	NFT 60101	852	859	873	879	880
Kinematic viscosity at 40°C	mm ² /s (cSt)	NFT 60100	15,3	21,6	29,4	45,6	68,1
Kinematic viscosity at 100°C	mm ² /s (cSt)	NFT 60100	3,7	4,3	5,4	6,8	8,6
Viscosity index	-	NFT 60136	132	105	120	103	97
Copper corrosion	-	ASTM D 130	1a	1a	1a	1a	1a
Flash point	°C	NFT 60118	182	208	223	242	240
Pour point	°C	NFT 60105	-30	-27	-27	-24	-24
TAN (TotalAcid Number)	mg KOH/g	ASTM D 664	0,27	0,21	0,20	0,24	0,26
Product number	-	-	220017	220018	220019	220020	220021

The average values are given for information only.