

## Hydromax FR-E 46

## Fire resistant hydraulic fluid

## Description

Hydromax FR-E is a long-life hydraulic fluid with high flash point synthetic ester, provided with good lubricating properties and long equipment life. Meets the requirements of ISO 6743/4 standard as fire resistant HFDU and ISO 15380 HEES class. Hydromax FR-E can be applied as hydraulic fluid whenever operating close to heat source. Hydromax is highly biodegradable so small leakages will not cause contamination.

## Applications

Hydromax FR-E is suitable for hydraulic applications in:

- Hot rolling
- Continuous casting
- Ingots conveyors
- Metal casting
- Stamping, forging, and sintering
- Thermic treatments ovens
- Welding machines

No special care is required when handling this product. Hydromax FR-E is compatible with most of the common rubbers of the mineral oil operated circuits including NBR, unless in good condition. Natural rubbers and polyurethane are not advised.

## Use conditions

When using Hydromax FR-E in a circuit which had been operating with a mineral hydraulic oil, it is sufficient to proceed as follows:

- Unload the circuit and clean the tank, making sure that the inner wall is not painted
- Take off and clean the filters
- Load the tank with Hydromax FR$E$ to the minimum level
- Run the circuit 1 or 2 hours under low pressure monitoring all movements
- Unload, and then set the filters, load again the tank with new Hydromax FR-E, and operate in normal conditions

Typical performance data

|  | Test method | FR-E 46 |
| :--- | :---: | :---: |
| Appearance | MD 0 | Clear liquid |
| Viscosity @ $40^{\circ} \mathrm{C}, \mathrm{cSt}$ | ASTM D-445 | 46 |
| Viscosity @ $100^{\circ} \mathrm{C}, \mathrm{cSt}$ | ASTM D-445 | 9.13 |
| Viscosity Index | ASTM D-2270 | $>180$ |
| Density @ $20^{\circ} \mathrm{C}, \mathrm{g} / \mathrm{ml}$ | ASTM D-1298 | 0.925 |
| Flash point, ${ }^{\circ} \mathrm{C}$ | ASTM D-92 | $>300$ |
| Pour point, ${ }^{\circ} \mathrm{C}$ | ASTM D-97 | $<-30$ |
| N.N., $\mathrm{mgKOH} / \mathrm{g}$ | ASTM D-974 | $<1$ |
| Demulsivity, $\mathrm{ml} / \mathrm{min}$ | ASTM D-1401 | Max 40/37/3 (30') |

