# **IBERTEM 99-F**



**INDUSTRY** 

## Lubricants

### **Description**

A natural paraffin mineral oil with high viscosity, formulated with highly refined selected base oils and special additives, which provide the properties required to overcome the difficult conditions needed for hot, rapid steel hardening. Ibertem 99-F is particularly suitable for use in hot, rapid hardening, where the bath temperature is between 150 and 180°C and even higher if there is an enclosed atmosphere. This kind of oil is used with non-alloy or low alloy parts.

#### **Properties**

- High cooling speed.
- Contains additives to achieve magnificent resistance to oxidation and sludge formation, thus
  prolonging its useful life.
- Very good thermal stability and low volatility, which reduces smoke and the risk of fire.
- Good foam resistance.
- Avoids surface blackening of the piece to be hardened.
- Uniform and lasting hardening capacity.

#### **Technical specifications**

	UNIT	METHOD	VALUE
Appearance			Glossy and trasparent
Colour		ASTM D 1500	< 7
Density at 15 °C	g/mL	ASTM D 4052	0.910
Viscosity at 40 °C	cSt	ASTM D 445	215
Viscosity at 100 °C	cSt	ASTM D 445	18.5
Viscosity index		ASTM D 2270	95
Flash point O/C	°C	ASTM D 92	250
Aniline point	°C	ASTM D 611	95
Neutralisation index	mg KOH/g		0.2
Noack volatility, 1 hr at 150 °C		DIN 51581	0.30

A safety data sheet is available on request.

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Technical data sheet for Lubricants. Revision 2. December 2008.