

Kältemaschinenöle BSE Refrigeration Oils BSE

Description

The refrigeration oils in the BSE series are based on synthetic esters developed especially for use with chlorine-free refrigerants based on fluorinated hydrocarbons (HFC/FC). In contrast to conventional refrigeration oils, these are miscible with the comparatively polar HFC.

Applications

The BSE series is highly suitable for all refrigeration circuits in which chlorine-free HFC refrigerants such as R134a and R404A are used. Depending on viscosity requirements, the refrigeration oils of the BSE series are recommended for hermetic, semihermetic and open piston compressors. BSE 32 in particular is suitable for deep-freezing units operated with R23.

Important

Due to their chemical structure, ester oils tend to absorb water. For this reason, these oils should only be exposed to air briefly during system filling and the contents of an opened container must be used within a single working day.

Advantages

- **Stable lubricating film at high temperatures, excellent lubricating properties**
- **Excellent miscibility with HFC/FC refrigerants**
- **Very high level of thermal and chemical stability**
- **Reliable oil return from the system, favourable heat transfer characteristic**
- **Good viscosity-temperatures behaviour, therefore reliable lubricating film even at high temperatures**
- **Excellent flow characteristic even at low temperatures**
- **Long – life oil filling**
- **Good compatibility with the gasket materials normally used in refrigeration engineering applications**

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Typical technical data:

Product name		BSE 32	BSE 55	BSE 170	BSE 170 L	
Properties	Unit					Test method
Density at 15 °C	kg/m ³	1007	1009	972	965	DIN 51757
Flashpoint	°C	240	270	260	246	DIN ISO 2592
Colour	---	1.0	1.0	1.0	0.5	DIN ISO 2049
Kinematic viscosity at 40 °C	mm ² /s	32	55	173	97	DIN 51562-1
at 100 °C	mm ² /s	6.1	9.0	17.6	11.3	DIN 51562-1
Viscosity index	-	141	143	111	103	DIN ISO 2909
Pourpoint	°C	-48	-51	-24	-33	DIN ISO 3016
Neutralisation number	mgKOH/g	0.03	0.03	0.03	0.03	DIN 51558-3
Water content	ppm	30	30	30	30	DIN 51777-1

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