

RENISO C 85 E

Synthetic refrigeration oil for CO₂ compressors

Description

RENISO C 85 E is a special synthetic refrigeration oil based on synthetic esters. Selected additives guarantee excellent wear protection, also under the influence of CO₂ in the compressor. RENISO C 85 E has an excellent solubility / miscibility with the refrigerant carbon dioxide (R 744).

Application

RENISO C 85 E was developed for use mainly in refrigeration systems (deep-temperature systems, cascades, etc.) which are working with the refrigerant CO₂ (R 744). RENISO C 85 E has an excellent solubility / miscibility with CO₂ which guarantees the oil circulation in the refrigeration system, especially at low evaporation temperatures. RENISO C 85 E can be used in almost any application in industrial and commercial refrigeration, e.g. large-scale cooling plants. RENISO C 85 E can also be used in transcritical CO₂ cycles, e.g. air conditioning and heat pump systems, as well as container cooling systems.

Specifications

RENISO C 85 E is a refrigeration oil acc. to DIN 51503: KB – refrigeration oils for CO₂.

NSF H2 registration:
registration no. 146755

Advantages

- High thermal stability
- High chemical stability with CO₂ refrigerant
- Excellent miscibility with CO₂ – also at low temperatures
- Excellent deep-temperature flowability
- Excellent lubrication at high pressure levels under CO₂ atmosphere
- Excellent experience in test facilities and prototype systems
- Used by leading compressor manufacturers.

Approvals:

DORIN
GEA BOCK
GEA GRASSO
JOHNSON CONTROLS INTERNATIONAL

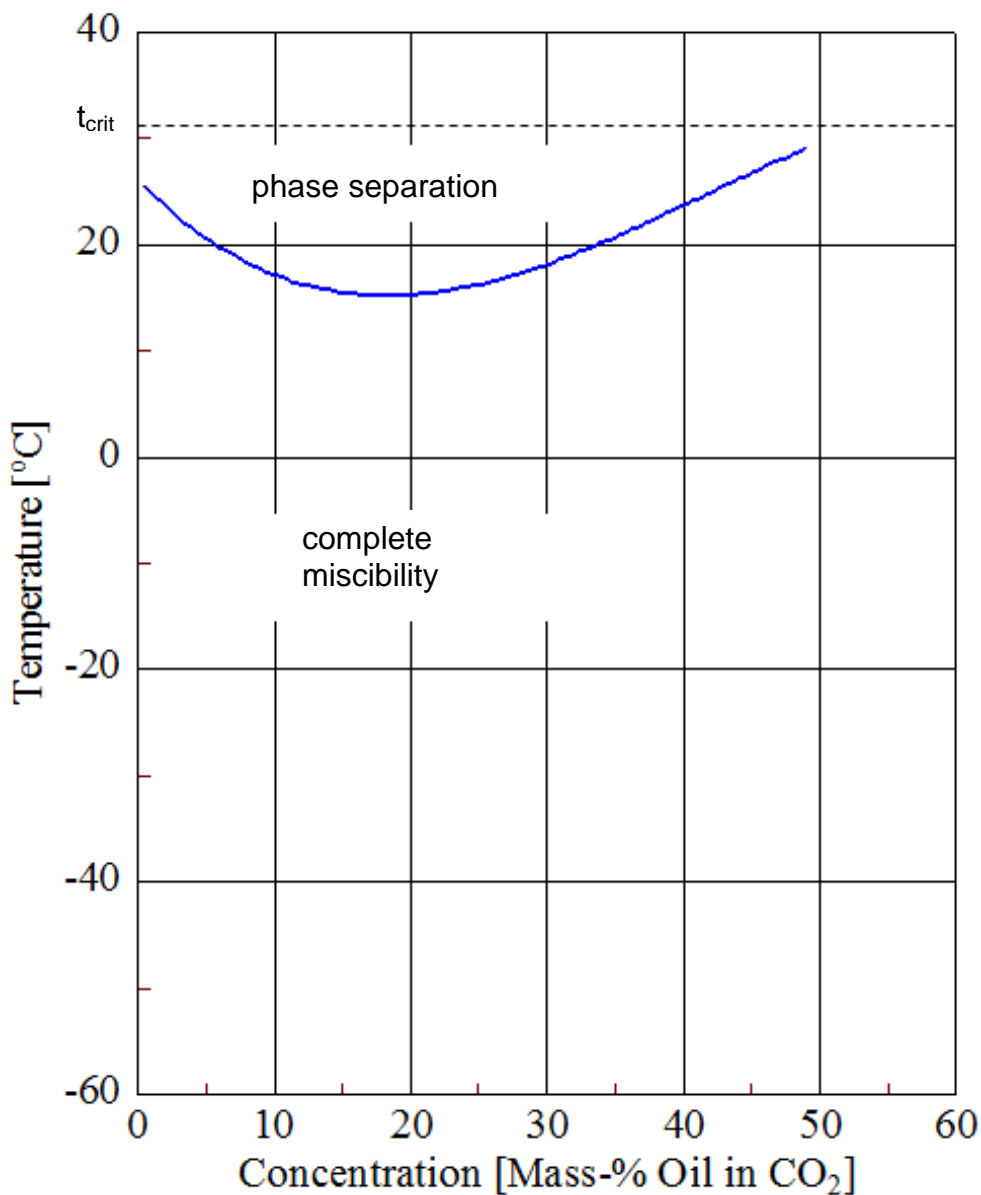
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Typical technical data:

Properties	Unit		Test Method
Colour		0.5	DIN ISO 2049
Density at 15 °C	kg/m ³	993	DIN 51757
Flashpoint	°C	246	DIN ISO 2592
Kinematic viscosity at 40 °C	mm ² /s	80	DIN EN ISO 3104
at 100 °C	mm ² /s	10.6	
Viscosity index	-	118	DIN ISO 2909
Pourpoint	°C	- 42	DIN ISO 3016
Neutralisation number	mgKOH/g	0.03	DIN 51558-1
Water content	mg/kg	< 30	DIN 51777-2

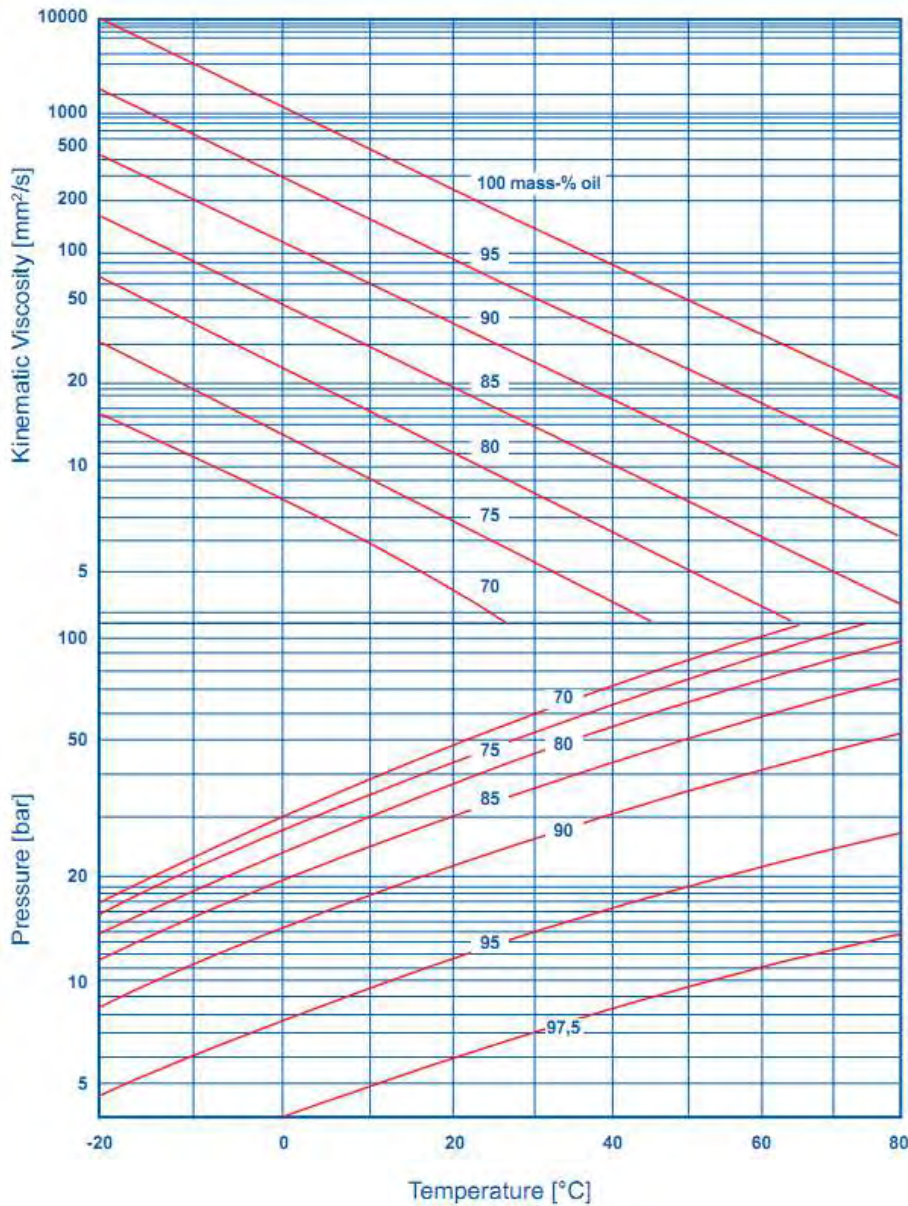
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Miscibility behaviour (miscibility gap): RENISO C 85 E and CO₂



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Kinematic viscosity and vapour pressure: RENISO C 85 E and CO₂



All % figures represent mass % oil in the refrigerant.