RENISO K

Special naphthenic refrigeration oils

Description

RENISO K refrigeration oils are based on highly refined, naphthenic selective raffinates that have been dewaxed especially for use at low temperatures. Their degree of refinement ensures that the RENISO K oils are extremely resistant to ageing when combined with any conventional refrigerant, especially with ammonia (NH_3), with HCFC- and with hydrocarbon refrigerants.

Application

RENISO KM 32, KS 46, KC 68 and KW 150 are recommended for use with ammonia (R717), with HCFC- (e.g. R22) and with hydrocarbon refrigerants (e.g. propane, propene, isobutane) in open, semi-hermetic and hermetic compressors.
RENISO KES 100 is recommended for use in HCFC systems, especially when high evaporation and condensation temperatures can occur, as e.g. in bus and vehicle air conditioning systems.

Specifications

RENISO K products are refrigeration oils according to DIN 51503: KAA, KC, KE
KAA – NH_3 refrigeration oils (non-miscible)
KC – HCFC refrigeration oils (miscible with fluoro-chlorinated hydrocarbons)
KE – refrigeration oils for hydrocarbon refrigerants (miscible)

KC 68 – NSF H2 registration:
registration no. 146750

Advantages

- **High chemical and thermal stability with ammonia - NH_3**
- **Prevent breakdowns caused by formation of wax deposits at low temperatures**
- **Excellent flowability at low temperatures ensures continuous heat transfer and enhanced system efficiency**
- **Good solubility with fluorochlorinated hydro-carbons (HCFC)**
- **Very low water content – dried before packaging**

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Certifications:
ISO 9001, IATF 16949, ISO 14001,
ISO 45001, ISO 50001

(detailed certifications at
www.fuchs.com/de/en)

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Typical data:

Product name		KM 32	KS 46	KC 68	
Characteristics	**Unit**				**Test method**
Colour		1.0	1.0	1.0	DIN ISO 2049
Density at 15 °C	kg/m³	881	894	894	DIN 51757
Kinematic viscosity at 40 °C at 100 °C	 mm^2/s mm^2/s	 32 4.9	 46 5.8	 68 7.4	DIN EN ISO 3104
Viscosity index	-	63	47	58	DIN ISO 2909
Pourpoint	°C	- 45	- 42	- 39	DIN ISO 3016
U-tube flowing	°C	- 35	- 30	- 25	DIN 51568
Neutralisation number Total acid number	mgKOH/g	0.01	0.01	0.01	DIN 51558-1
Flashpoint, Cleveland open cup	°C	202	204	223	DIN ISO 2592
Water content (K.F.)	mg/kg	25	25	25	DIN 51777-2
Electrical conductivity	KV	> 40	> 40	> 40	DIN VDE 0370-1

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RENISO K

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Typical data:

Product name		KES 100	KW 150	
Characteristics	**Unit**			**Test method**
Colour		1.0	1.5	DIN ISO 2049
Density at 15 °C	kg/m³	912	917	DIN 51757
Kinematic viscosity at 40 °C at 100 °C	 mm^2/s mm^2/s	 100 8.4	 150 10.9	DIN EN ISO 3104
Viscosity index	-	20	27	DIN ISO 2909
Pourpoint	°C	- 33	- 30	DIN ISO 3016
U-tube flowing	°C	- 17.5	--	DIN 51568
Neutralisation number Total acid number	mgKOH/g	0.01	0.01	DIN 51558-1
Flashpoint, Cleveland open cup	°C	218	215	DIN ISO 2592
Water content (K.F.)	mg/kg	25	25	DIN 51777-2
Electrical conductivity	KV	> 40	> 40	DIN VDE 0370-1

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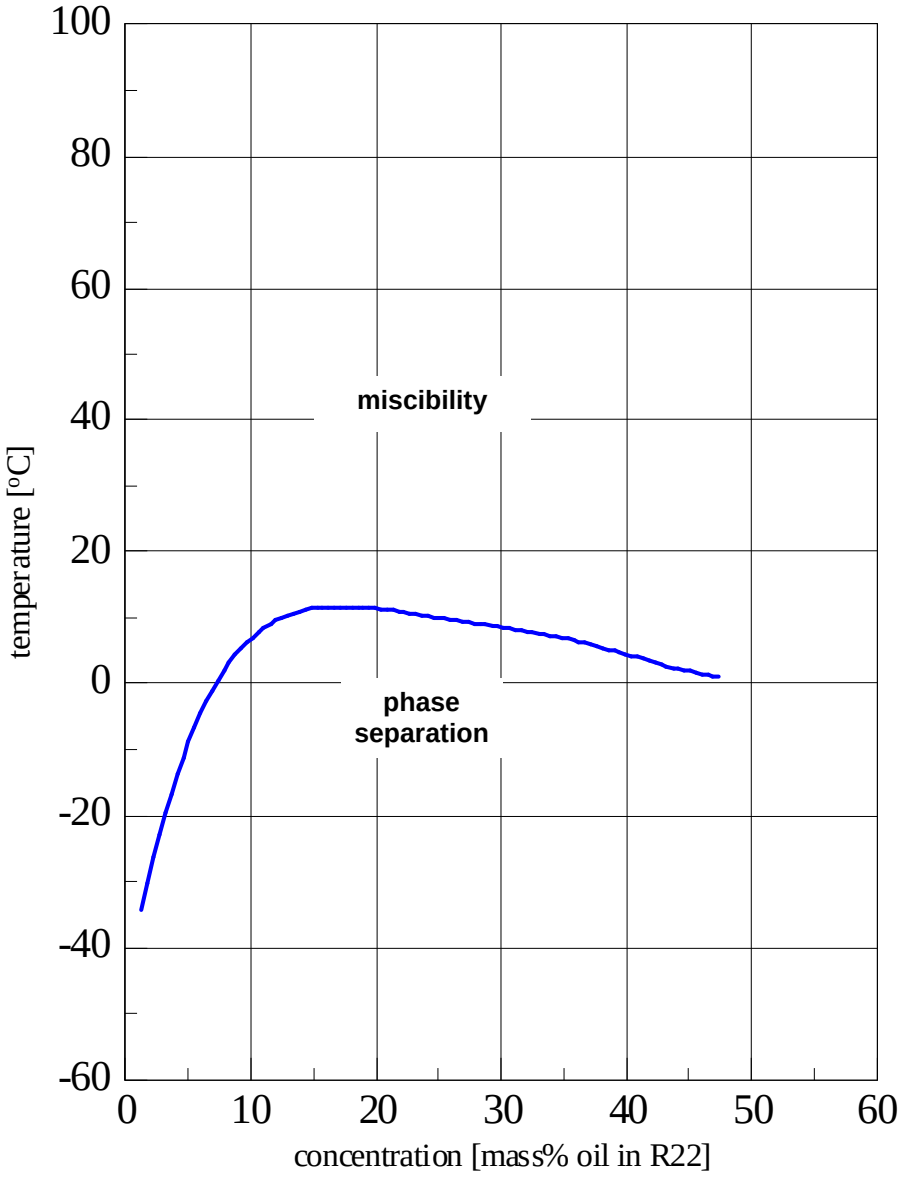
Miscibility behaviour (miscibility gap): RENISO KM 32 and R22



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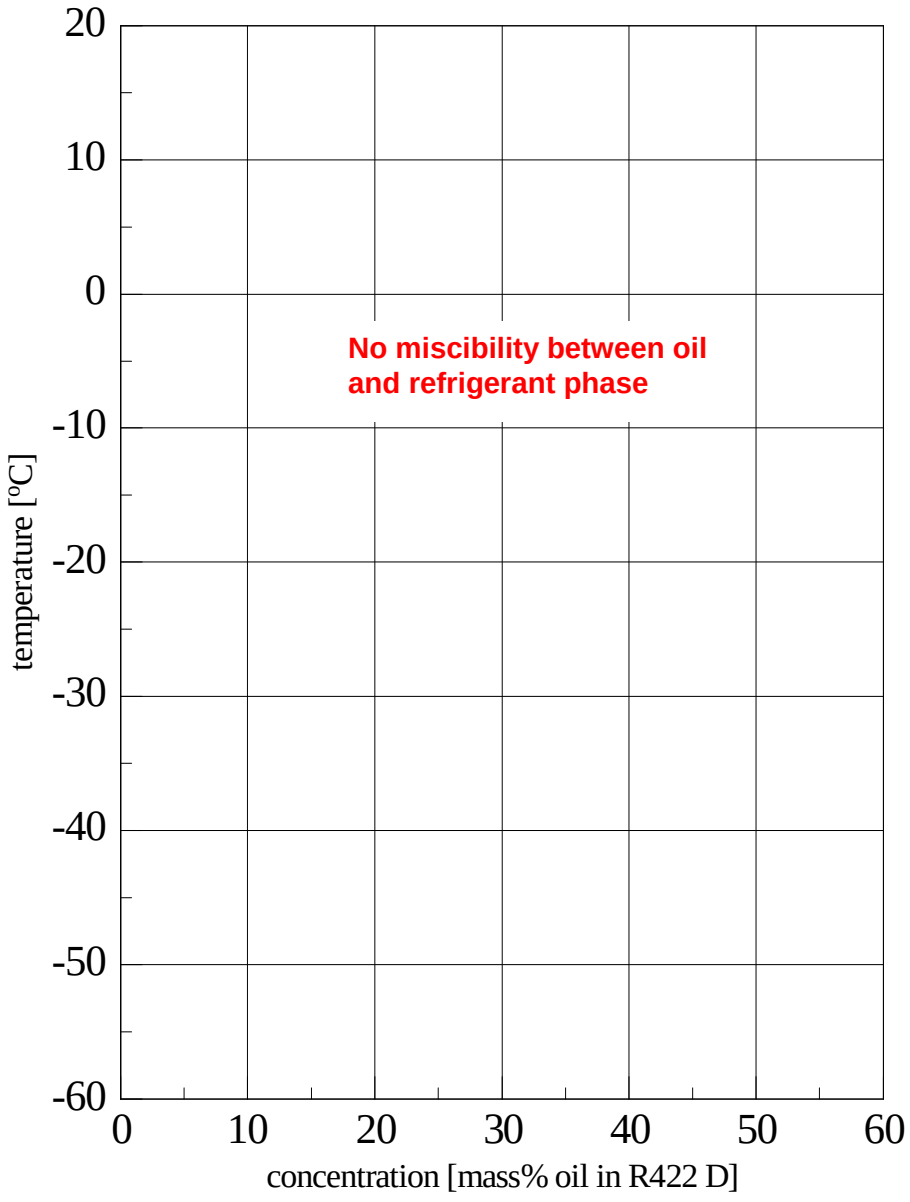
Miscibility behaviour (miscibility gap): RENISO KM 32 and R422 D



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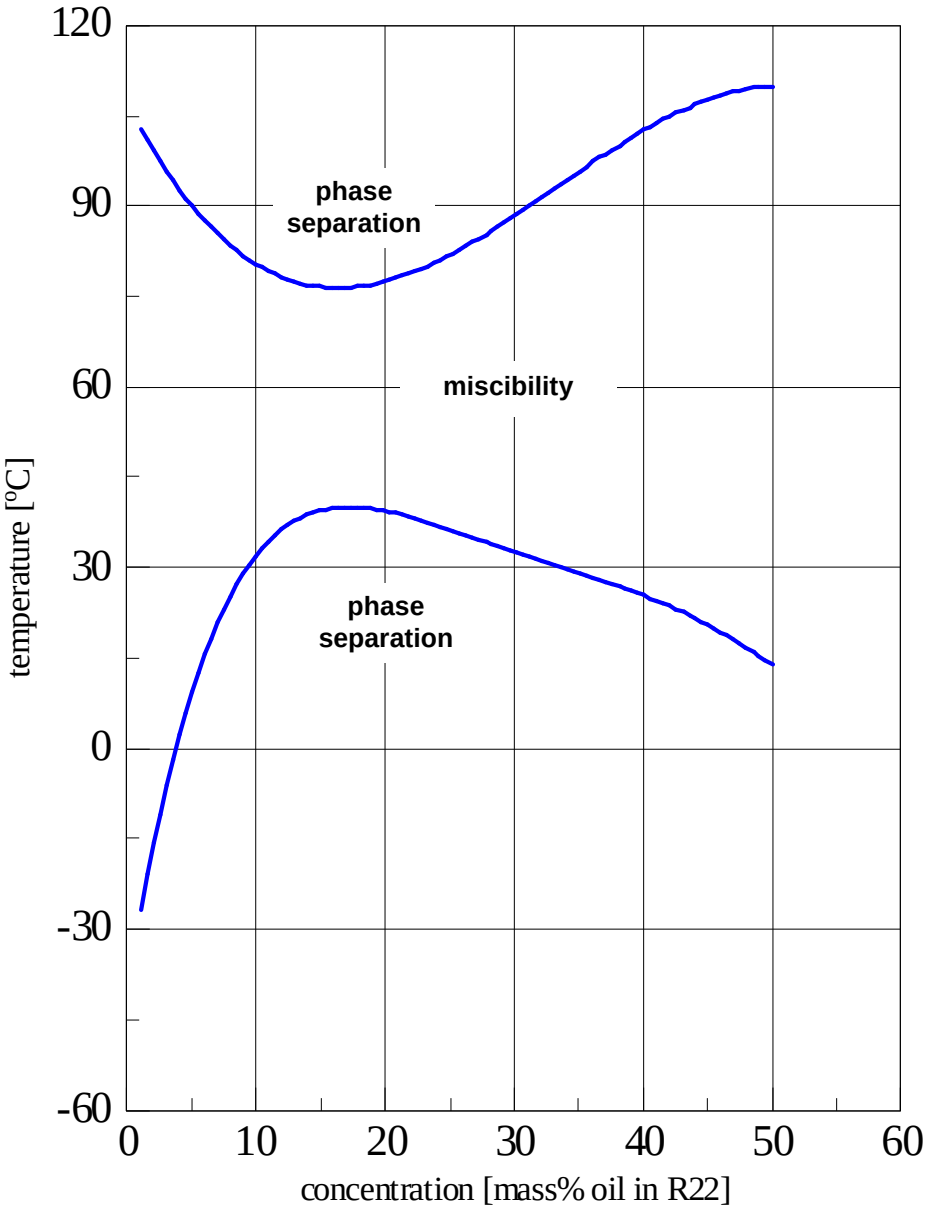
Miscibility behaviour (miscibility gap): RENISO KC 68 and R22



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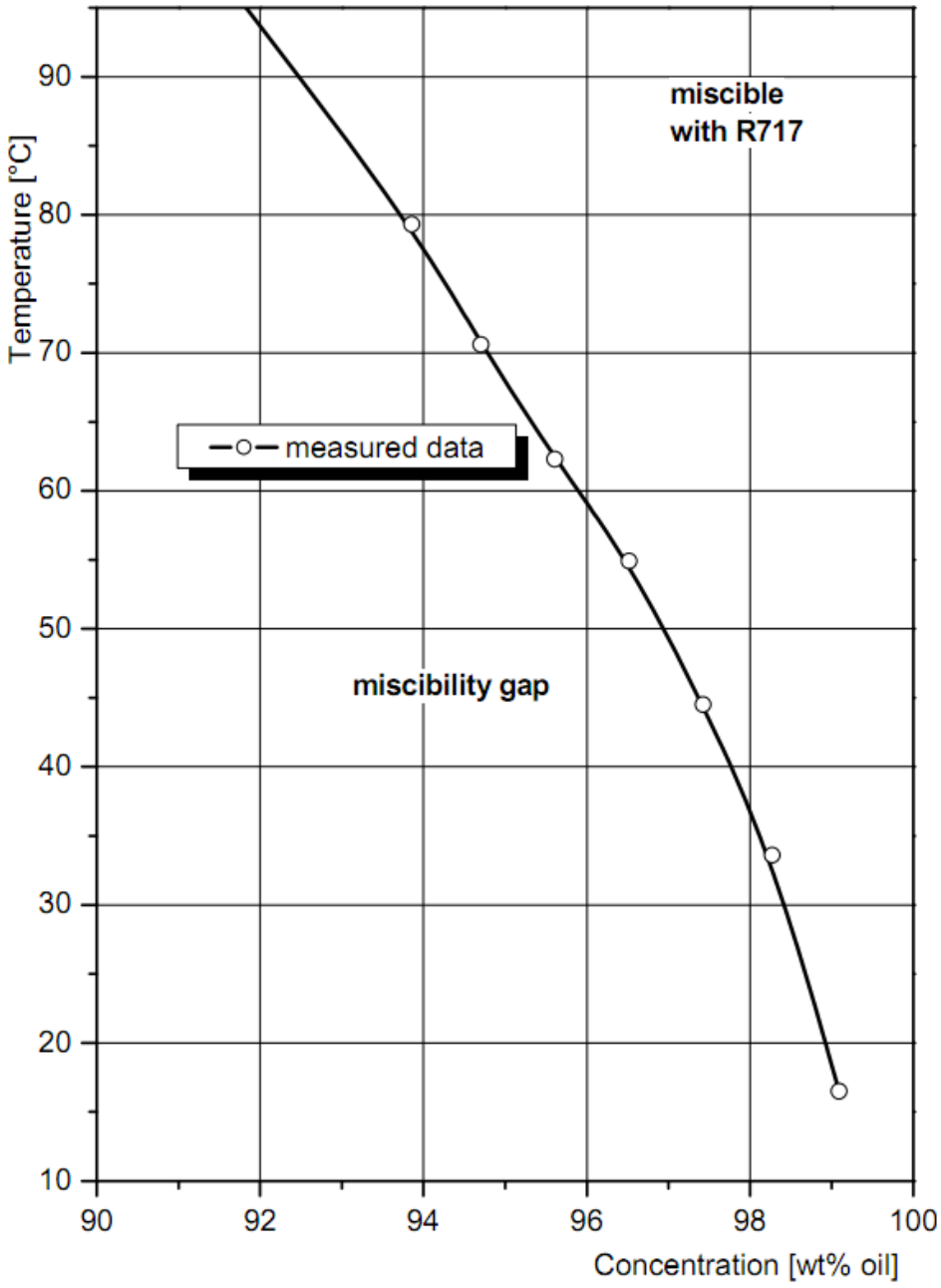
Miscibility behaviour (miscibility gap): RENISO KC 68 and ammonia



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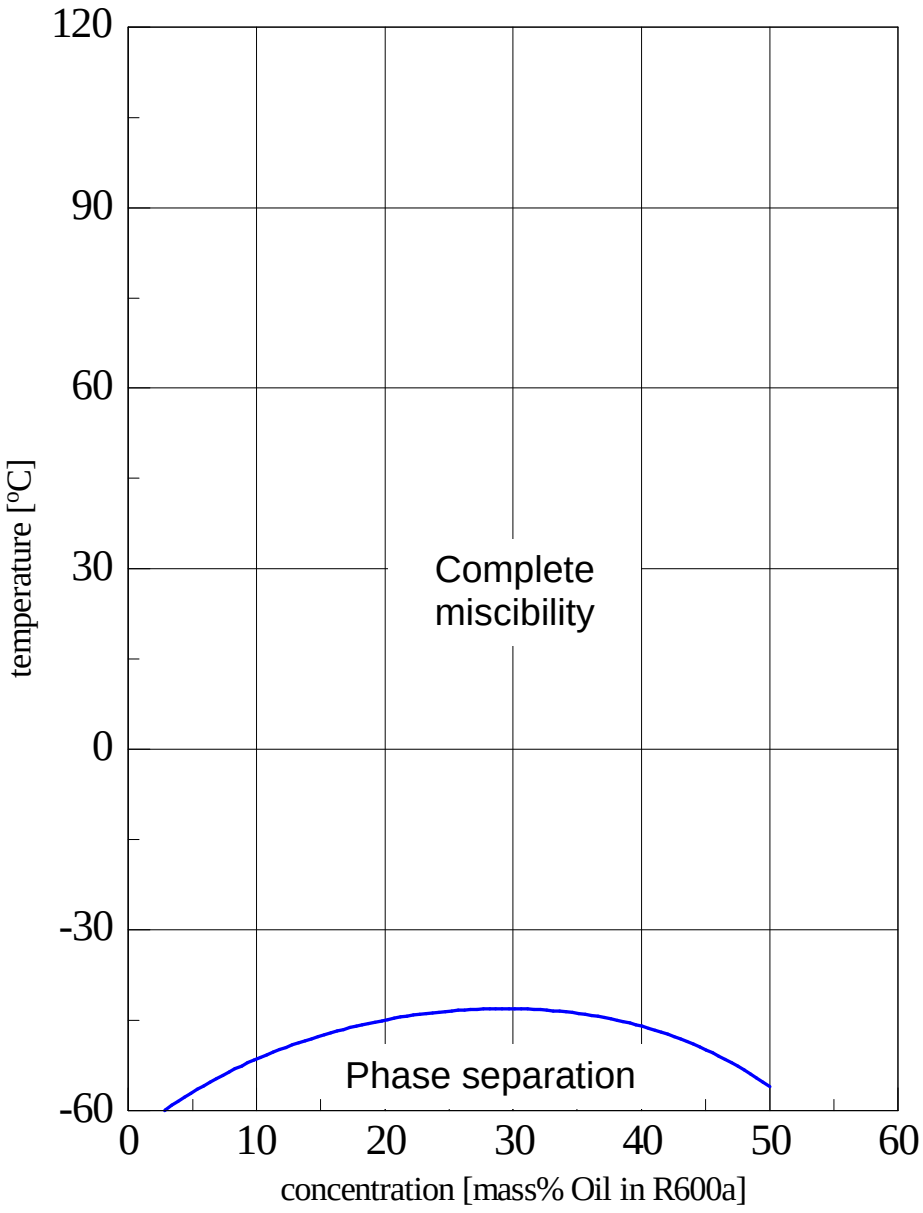
Miscibility behaviour (miscibility gap): RENISO KC 68 and R600a



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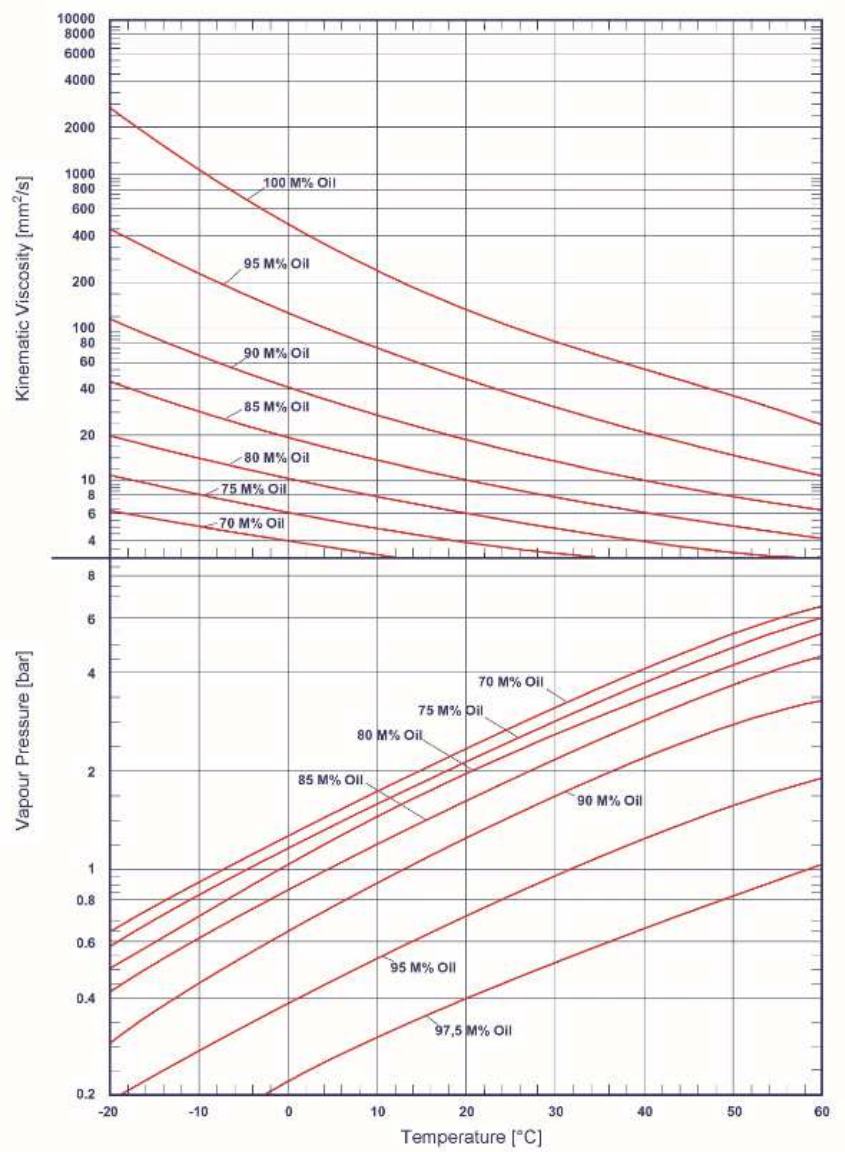
Special naphthenic refrigeration oils

Kinematic viscosity and vapour pressure: RENISO KC 68 and R600a



All % figures represent mass % oil in the refrigerant.

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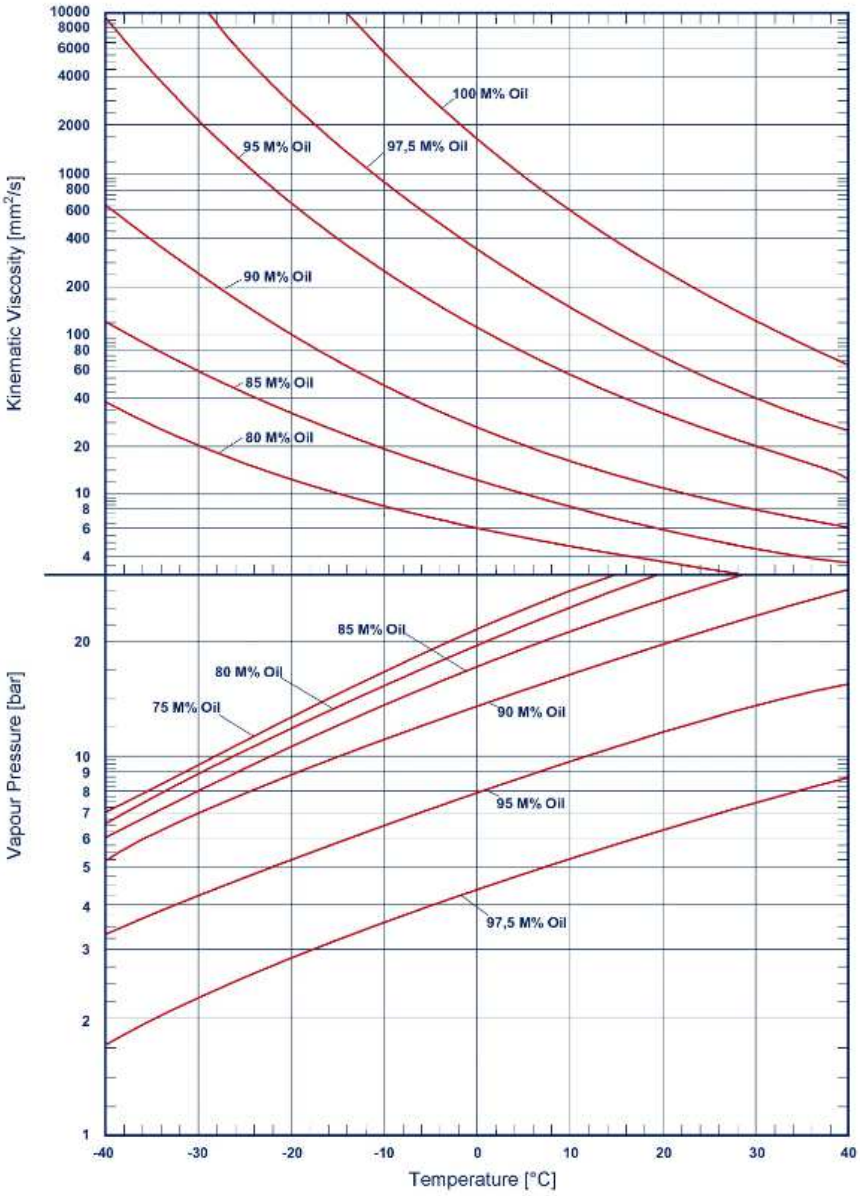
Kinematic viscosity and vapour pressure: RENISO KC 68 and R170



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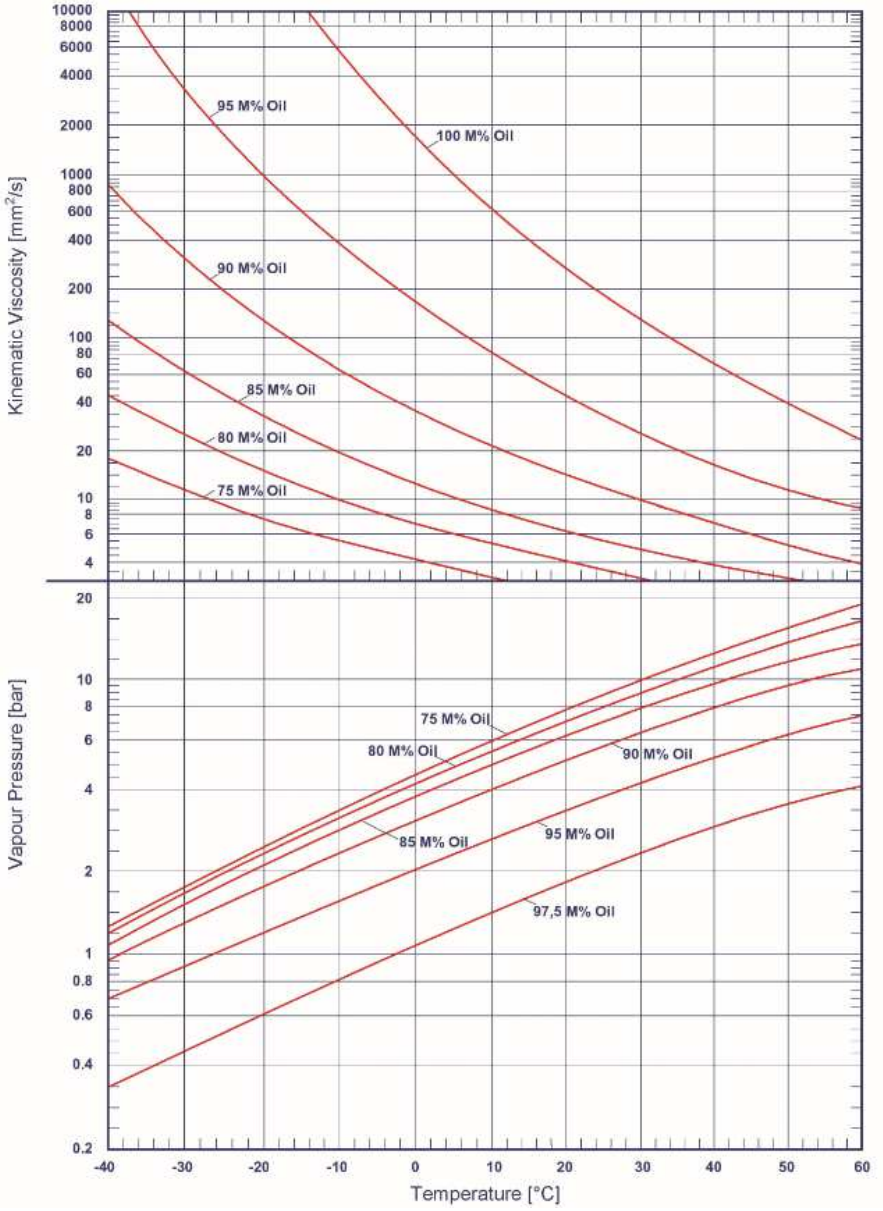
Kinematic viscosity and vapour pressure: RENISO KC 68 and R1270



All % figures represent mass % oil in the refrigerant.

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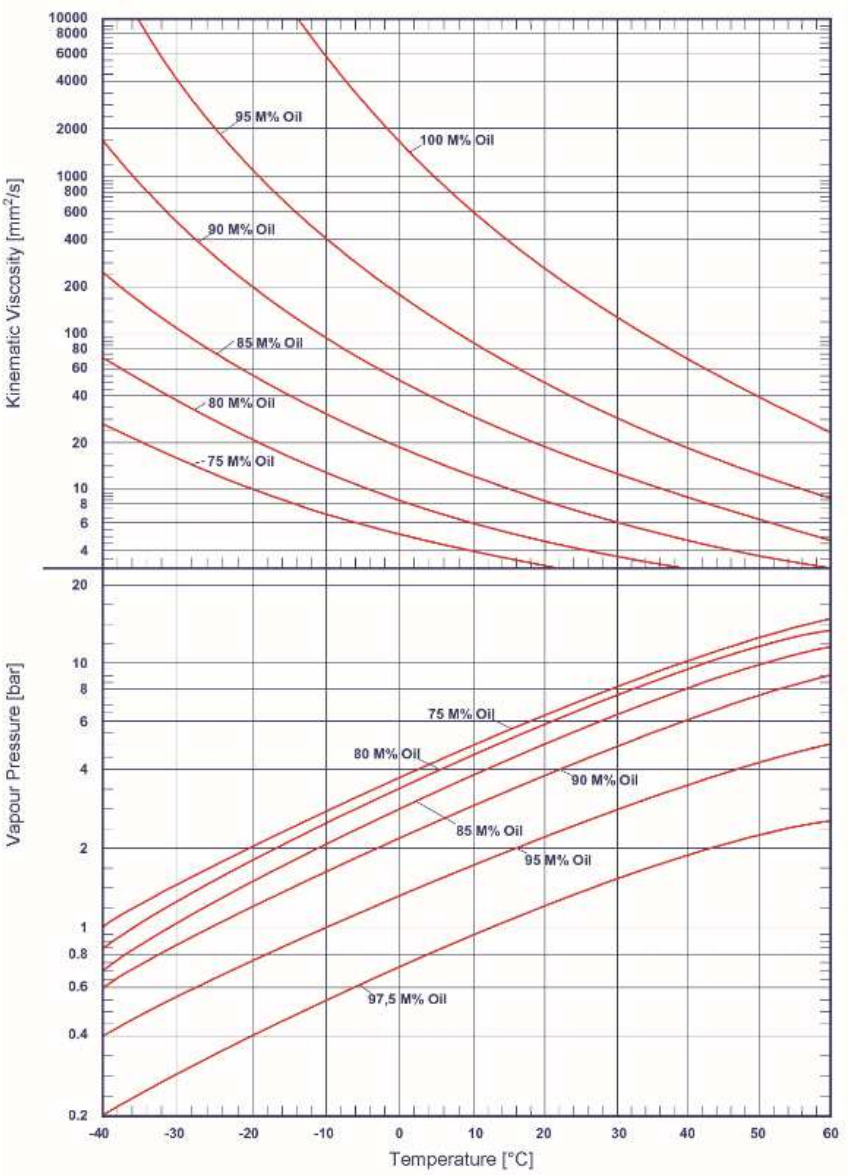
RENISO K

Special naphthenic refrigeration oils

Kinematic viscosity and vapour pressure: RENISO KC 68 and R290



All % figures represent mass % oil in the refrigerant.

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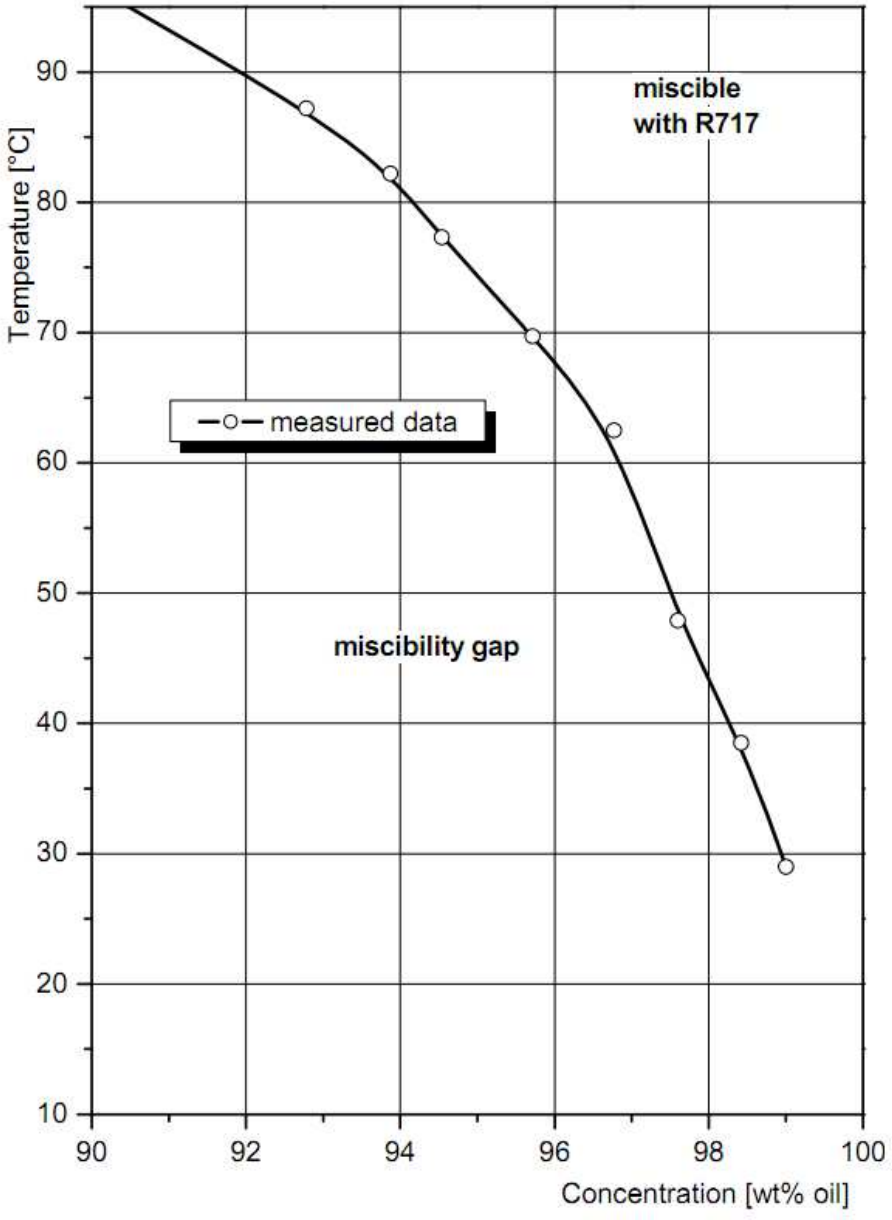
Miscibility behaviour (miscibility gap): RENISO KES 100 and ammonia



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Product Information

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Note

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Our products must not be used in aircraft or spacecraft. Our products may be used in the manufacture of components for aircraft or spacecraft if they are removed without residue from the components prior to assembly into the aircraft or spacecraft.

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