

Technical Data Sheet

Divinol Thermosure

Product description

Divinol Thermosure is a water-glycol mixture based on ethylene-glycol. The product is bio-degradable and does not endanger the ground-water. It is free of nitrite, amine, phosphate and borate.

Characteristics (undiluted)

Ethylene glycol:	92 weight in %
Inhibitors and water:	8 weight in %
Density/20°C / DIN 51 757:	1110 kg/m ³
Viscosity/40°C / DIN 51 562:	10 mm ² /s
Flash point:	100 °C
Pour point / DIN ISO 3016:	-15 °C
Water hazard class:	1

Application

Divinol Thermosure is a heat transfer fluid to be used in a wide temperature range. The product can be mixed with ordinary tap water. These mixtures allow low working temperature, increase the boiling point and at the same time avoid an corrosive attack on metallic systems. A sufficient corrosion protection is guaranteed starting from a ratio of 30 % of **Divinol Thermosure**.

Divinol Thermosure is compatible with usual elastomers NBR, H-NBR, ACM, MVQ, FPM, EPDM, IIR, NR, SBR, CR, PTFE, LDPE and HDPE, PP, PVC, PA as well as UP.

Furthermore, **Divinol Thermosure** is compatible with copper.

Divinol Thermosure will be used, for example, for heating, process temperature control, floor heating, air-conditioning systems and defrosting of cooling coils.

Note: **Divinol Thermosure** must not be used in systems with zinc coated steel.

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Mixing table

Freezing- and boiling points (mixture):

▶ Vol.% glycol	30	40	45	50	55	60
▶ Freezing point (°C)	-16	-25	-31	-38	-45	-50
▶ Boiling point (°C)	105	108	109	111	112	115
▶ Spec. heat						
at: -10 °C (kJ/kgK)	3.72	3.40	3.24	3.11	3.03	2.96
20 °C (kJ/kgK)	3.85	3.57	3.44	3.31	3.23	3.16
100 °C (kJ/kgK)	3.97	3.80	3.73	3.65	3.57	3.50
▶ Heat conductivity (W/mK)	0.46	0.42	0.41	0.39	0.37	0.36

Corrosion protection effect:

<u>Test set up according to</u> ASTM D 1384	<u>Change of weight in mg/test metal sheet ¹</u>					
	Brass	Copper	Solder	Steel	Cast Iron	Aluminium
Upper limit (max.)	-10	-10	-30	-10	-10	-30
Divinol Thermosure	-1.6	-1.9	+0.1	-0.5	-1.4	-4.6

¹ = Loss of weight after chemical purification

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