DelcoTerm® S TFI

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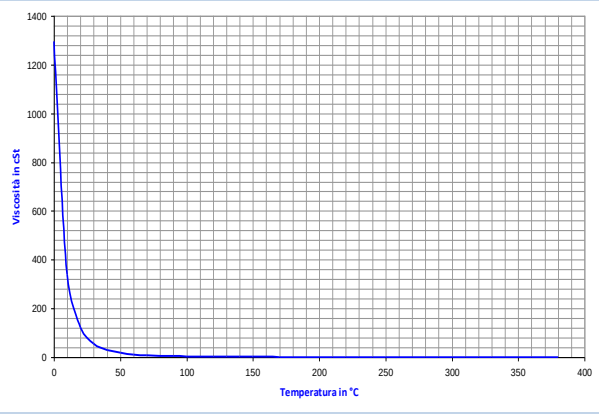
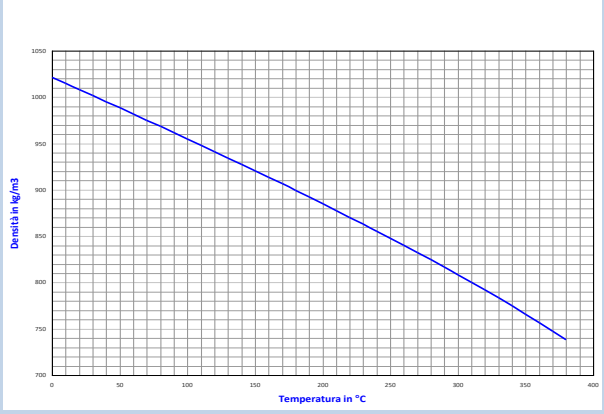
DIATHERMIC SYNTHETIC OIL FOR HIGH TEMPERATURES

DelcoTerm® S TFI is a synthetic diathermic oil with high thermal stability, made up of a mixture of hydrogenated terfenyls and partially hydrogenated polyphenyls, particularly suitable for oleothermal plants that operate at very high temperatures, where a mineral diathermic oil can not be used. The maximum temperatures of use that the fluid is able to reach without being cracked are **345 ° C as mass temperature and 375 ° C as film temperature**. Designed for use in systems operating at atmospheric pressure, the DelcoTerm® S TFI guarantees savings on maintenance costs and also its durability represents a sure saving for plant shutdown maintenance costs. The fluid formulation minimizes the formation of low boiling and degradation products, as long as the fluid is used within the product specifications. Its use is necessary and therefore to be recommended for systems where the fluid is subjected to working temperatures above 300 ° C. To prevent further oxidation phenomena it is absolutely necessary that the plant is equipped with a efficent defense against the possibility that the fluid comes into contact with the oxygen present in the air. The hot oil circuit must be absolutely equipped with a pressurized nitrogen vessel or a D.E.L.CO patented BEI (Inverse Expansion Barrel) or an efficient liquid guard system. The following diagrams show the trend of the main chemical-physical parameters with the temperature; the final table shows instead indicative average characteristics of the product. DelcoTerm® S TFI is commonly used in heating exchange systems and waste heat recovery systems, including, for example: production of chemical substances, co-generation plants, production of films and polyester fibers, biomass power plants, recovery of heat for preheating combustion air in furnaces, etc.. DelcoTerm® S TFI is a guarantee because it is subjected to numerous analytical checks that certify its quality and is it also supported by D.E.L.CO forty years experience and know-how in the diathermic oils field. The following page lists the main properties of the product.
More additional information or technical details can be requested to D.E.L.CO..

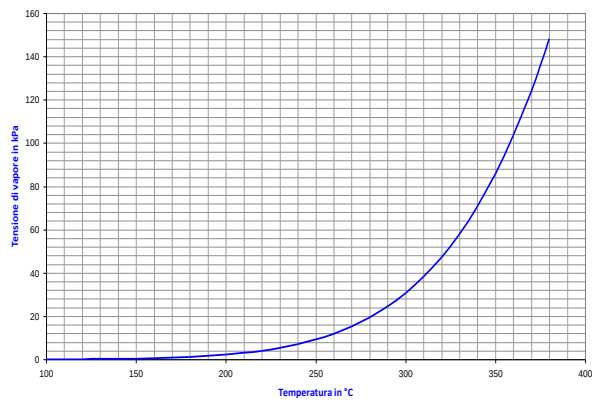
VISCOSITY VS TEMPERATURE



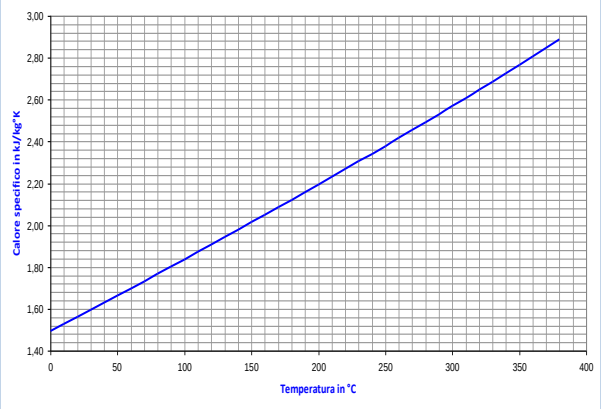
DENSITY VS TEMPERATURE



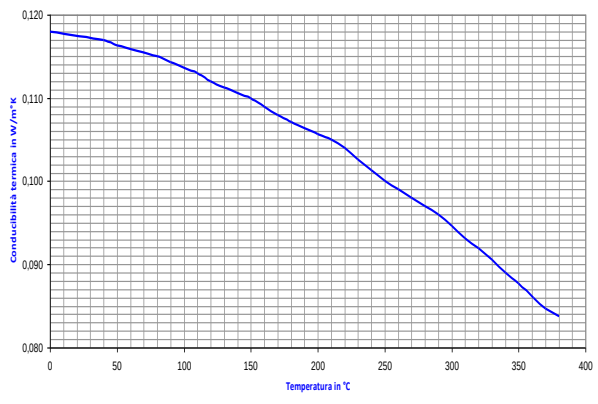
STEAM TENSION VS TEMPERATURE



SPECIFIC HEAT VS TEMPERATURE



THERMAL CONDUCTIVITY VS TEMPERATURE



Indicative average characteristics		*Unit*	*Typical values*
Specific Weight	a 40°C	kg/m³	995
	a 200°C	kg/m³	885
	a 300°C	kg/m³	808
Kinematic viscosity	a 40°C	cSt	29,6
	a 200°C	cSt	0,97
	a 300°C	cSt	0,51
Specific heat	a 40°C	kJ/(kg*K)	1,63
	a 200°C	KJ/(kg*K)	2,19
	a 300°C	KJ/(kg*K)	2,56
Thermal conductivity	a 40°C	W/(m*K)	0,11
	a 200°C	W/(m*K)	0,10
	a 300°C	W/(m*K)	0,09
Flash point (PM)		°C	175
Pour point		°C	-32
Boiling point		°C	360
Self-ignition point		°C	400
Maximum usage mass temperature		°C	345
Maximum film temperature		°C	370

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