



# TOTAL SERIOLA K 3120

Synthetic Heat Transfer Fluid based on Alkylbenzene

## USES

- Heating of domestic and industrial premises
- All types of systems(piping, pumps, etc.)
- Production of steam and hot water
- Heating of heat treatment baths
- Temperature control for storage bins
- Manufacturing processes
- Heating by heat exchange
- Operational temperature: from -20 °C to 300 °C

## PROPERTIES

- Very long life cycle with good resistance to thermal cracking and to oxidation
- Excellent thermal stability even at high temperature
- Very good solubility for the oxidation products
- Miscible and compatible with all portion of mineral oil
- Very high auto-ignition point

## SPECIFICATION

- KS M 2501
- ISO 6743/12 class L family QB
- DIN 51502 class L

## CHARACTERISTICS

Test items	Method	Unit	Typical value
Density 15 °C	ASTM D-1298	g/cm <sup>3</sup>	0.873
Viscosity	ASTM D-445	at 40 °C	18.23
		at 100 °C	3.48
		at 200 °C	1.01
		at 300 °C	0.58
Pour point	ASTM D-97	°C	-52.5
Flash point, COC	ASTM D-92	°C	200
Fire point		°C	227
Auto-ignition point	ASTM D-2155	°C	390
Total acid number	ASTM D-974	mgKOH/g	0.01
Distillation	ASTM D-86	IBP	335
		10%	354
		90%	387
Conradson carbon residue	ASTM D-189	%	Nil
Thermal expansion coefficient		/°C	6.7 X 10 <sup>-4</sup>
Molecular weight	ASTM D-2502	-	315
Bulk temperature limit		°C	320
Limit temperature of oil film		°C	360

Above characteristics are mean values given as an information.

## ► Physical properties

Temperature (°C)	Specific Heat (kcal/kg°C)	Thermal Conductivity (kcal/m.hr.°C)	Density (g/cm <sup>3</sup> )	Viscosity (cSt)
0	0.4313	0.1157	0.8829	173
20	0.4487	0.1144	0.8702	46.65
40	0.4660	0.1132	0.8576	18.23
60	0.4833	0.1119	0.8451	9.07
100	0.5180	0.1094	0.8203	3.48
120	0.5353	0.1082	0.8081	2.47
140	0.5527	0.1069	0.7959	1.86
160	0.5700	0.1057	0.7839	1.47
180	0.5874	0.1044	0.7719	1.20
200	0.6047	0.1032	0.7600	1.01
220	0.6220	0.1019	0.7482	0.88
240	0.6394	0.1007	0.7365	0.77
260	0.6567	0.0994	0.7248	0.69
280	0.6741	0.0982	0.7133	0.63
300	0.6914	0.0970	0.7018	0.58

