

**THERMAL FLUIDS MANUAL:
LIQUIDS OTHER THAN WATER**

CS611



CE



TABLE version: **0004**

Bold characters indicate the table version which the manual refers; it is when the instrument is switched on or from a specific function in the DIAGNOSTIC menu. The digits that go to the version of the table are the last 4 digits of the firmware revision eg. 1.05.0000.**0004**





INDEX

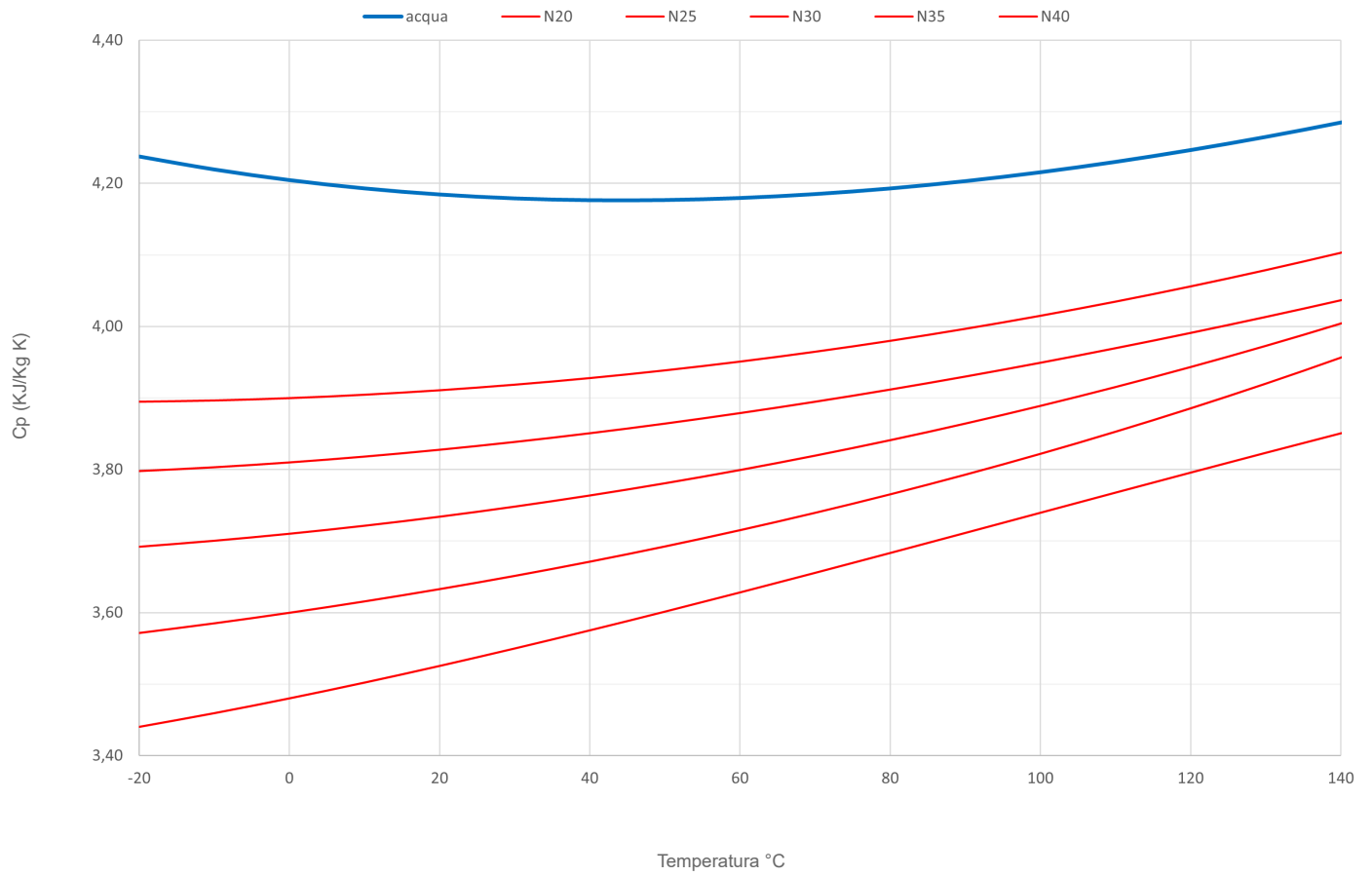
CODE	ACRONYM	TYPE	CONCENTRATION	MID	PAG.
100	ETG Afn N A5	Ethylene	20-40%	✓	2
101	ETG Afn SHT A5	Ethylene	Fixed	✓	4
200	PPG Tfr L A5	Propylene	0-40%	✓	6
201	PPG Tfr LS A5	Propylene	Fixed	✓	8
300	Ecogel G	Glycerin	1-60%	✓	10

CODE 100**Substance type:** ethylene**Full code:** N: 100:'ETG AfN N A5'**Description:** Ethylene glycol solution in variable concentration

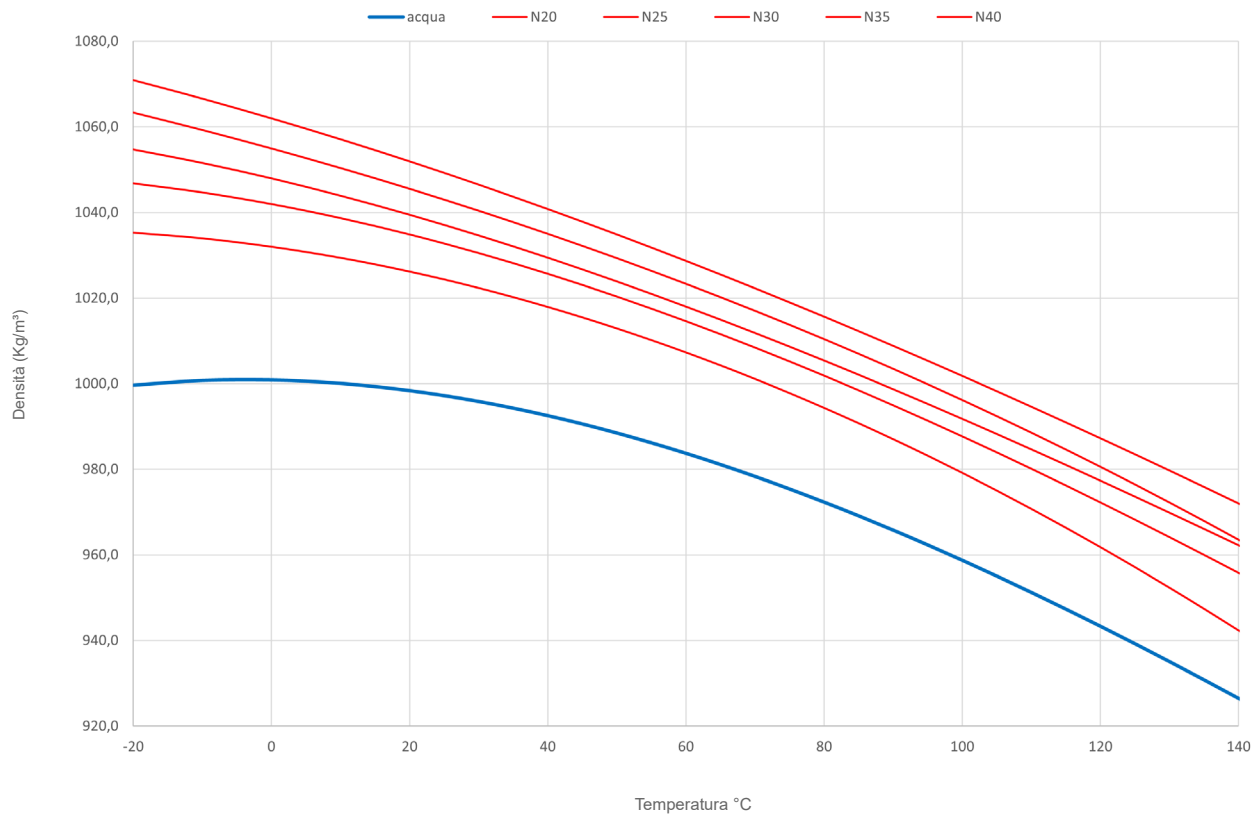
T (°C)	N20		N25		N30		N35		N40	
	cp	density	cp	density	cp	density	cp	density	cp	density
	kJ/ (kg K)	kg/ m ³	kJ/ (kg K)	kg/ m ³	kJ/ (kg K)	kg/ m ³	kJ/ (kg K)	kg/ m ³	kJ/ (kg K)	kg/ m ³
-20	3,90	1035	3,80	1047	3,69	1055	3,57	1063	3,44	1071
-10	3,90	1034	3,80	1045	3,70	1052	3,58	1059	3,46	1067
0	3,90	1032	3,81	1042	3,71	1048	3,60	1055	3,48	1062
10	3,91	1029	3,82	1039	3,72	1044	3,61	1050	3,50	1057
20	3,92	1026	3,83	1035	3,73	1040	3,63	1045	3,53	1052
30	3,92	1022	3,84	1031	3,75	1035	3,65	1040	3,55	1047
40	3,93	1018	3,85	1026	3,76	1030	3,67	1035	3,57	1041
50	3,94	1013	3,86	1020	3,78	1024	3,69	1029	3,60	1035
60	3,96	1007	3,88	1015	3,80	1018	3,71	1023	3,63	1029
70	3,97	1001	3,90	1009	3,82	1012	3,74	1017	3,66	1022
80	3,98	994	3,91	1002	3,84	1006	3,76	1010	3,68	1016
90	4,00	987	3,93	995	3,86	999	3,79	1003	3,71	1009
100	4,02	979	3,95	988	3,89	992	3,82	996	3,74	1002

N.B: Intermediate concentrations are interpolated. Concentrations lower than 20% are not allowed.

Calore specifico (KJ/Kg K)



Densità (Kg/m³)



CODE 101

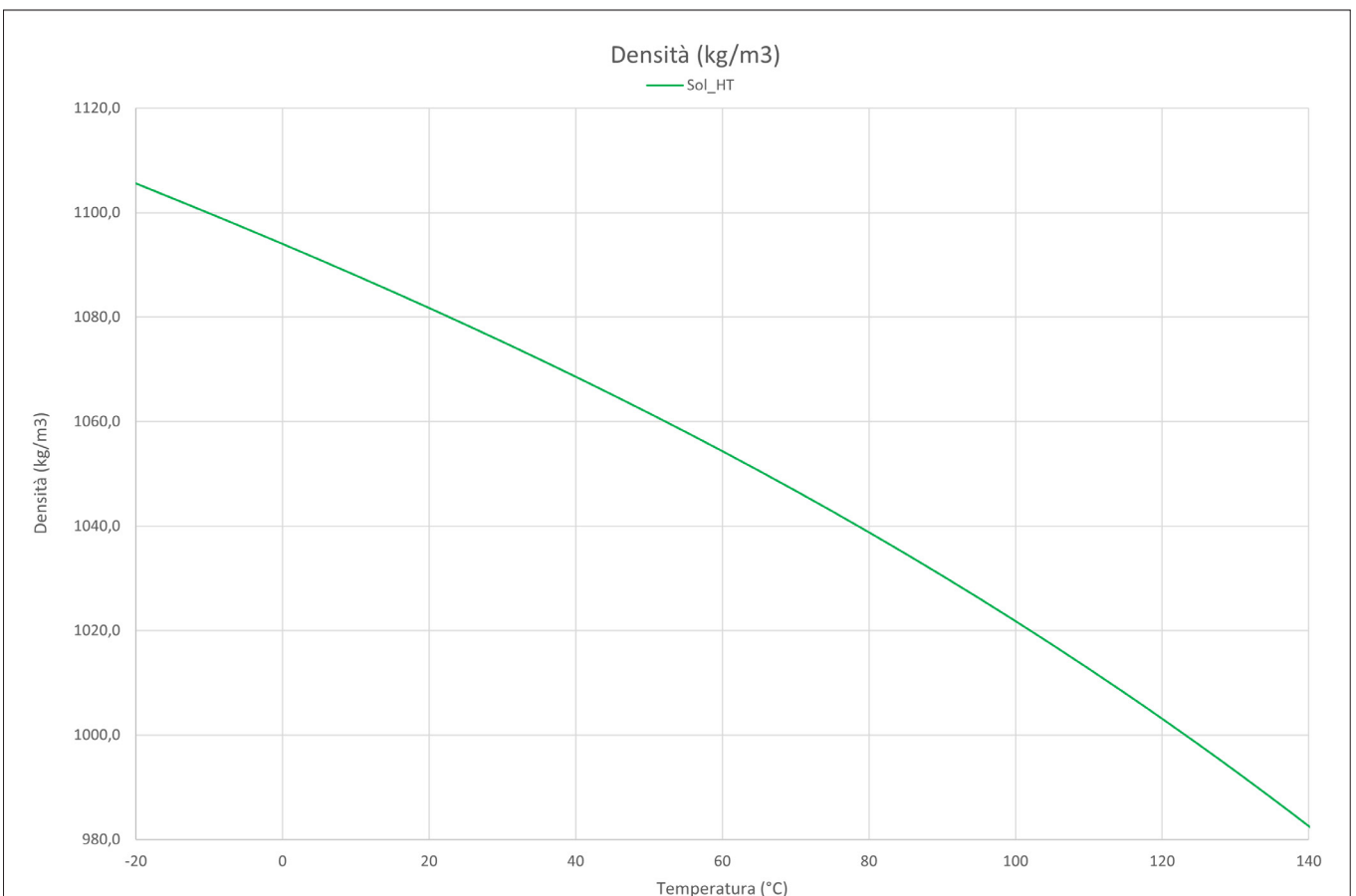
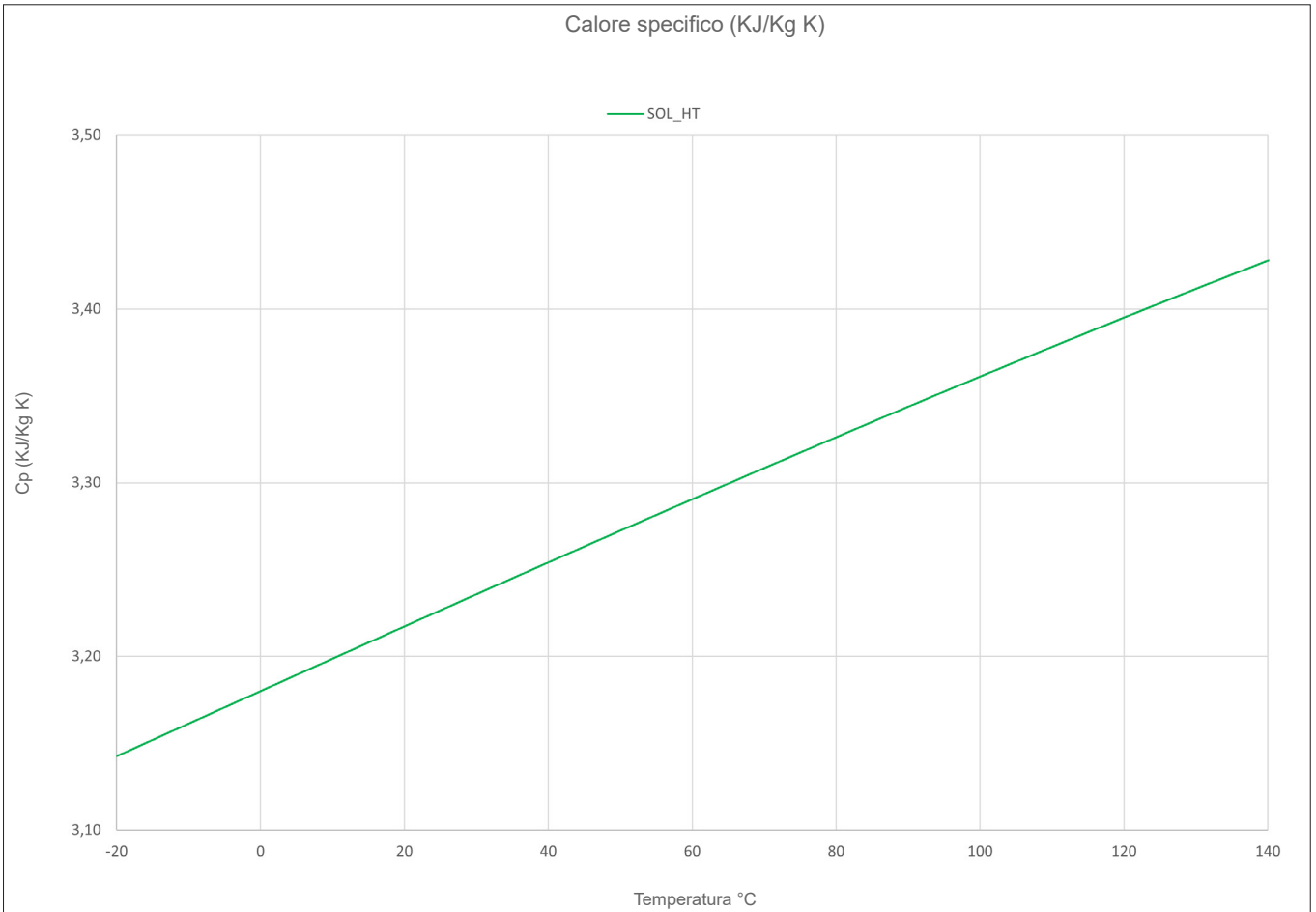
Substance type: ethylene

Full code: SOL HT: 101:'ETG Afn SHT A5'

Description: ready-made ethylene glycol solution in a single concentration

T (°C)	SOL HT	
	cp	density
	kJ/ (kg K)	kg/ m3
-20	3,14	1106
-10	3,16	1100
0	3,18	1094
10	3,20	1088
20	3,22	1082
30	3,23	1076
40	3,25	1069
50	3,27	1062
60	3,29	1054
70	3,31	1047
80	3,33	1039
90	3,34	1031
100	3,36	1022

N.B: Other concentrations than the product as supplied are not allowed.



CODE 200

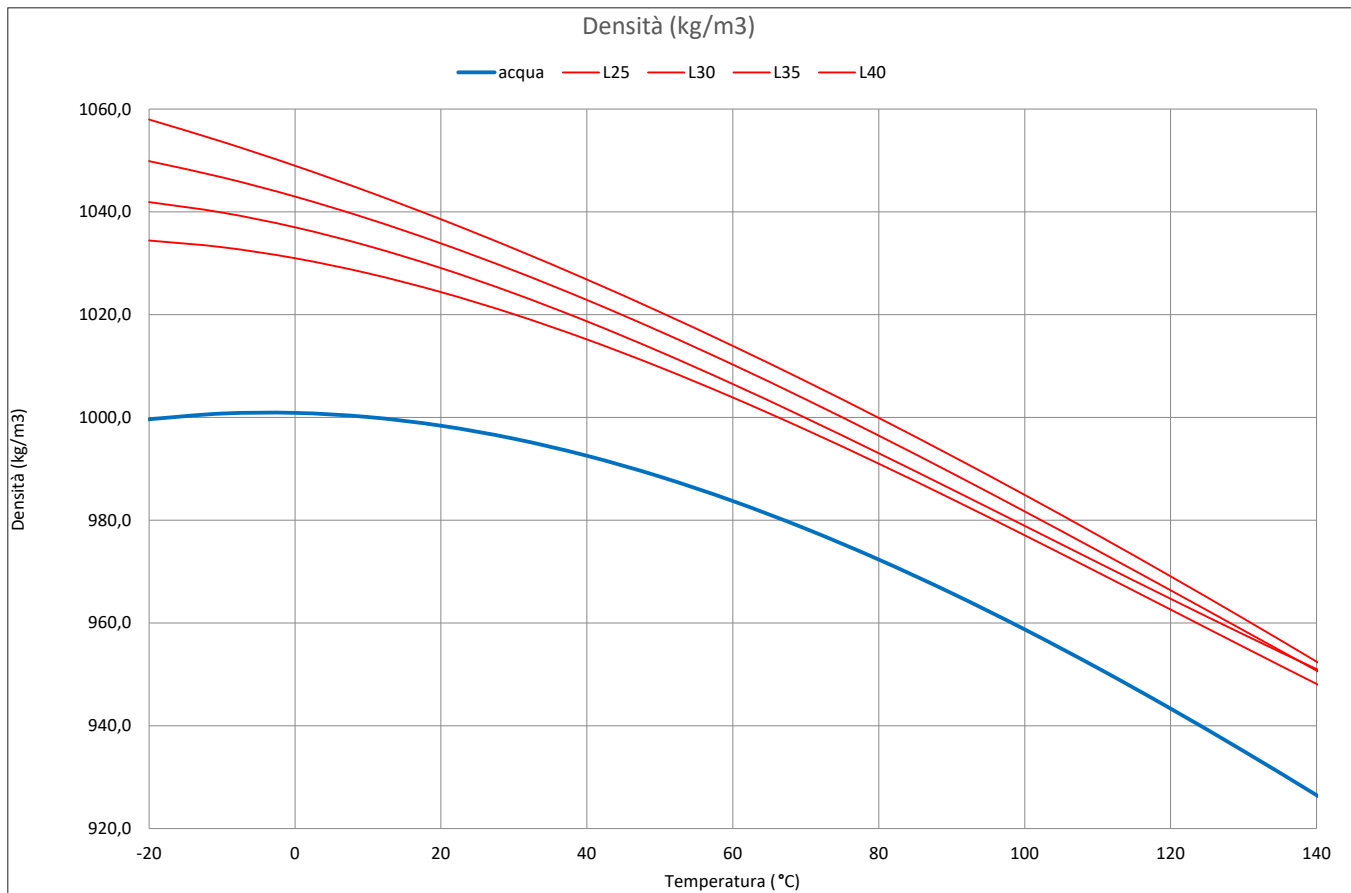
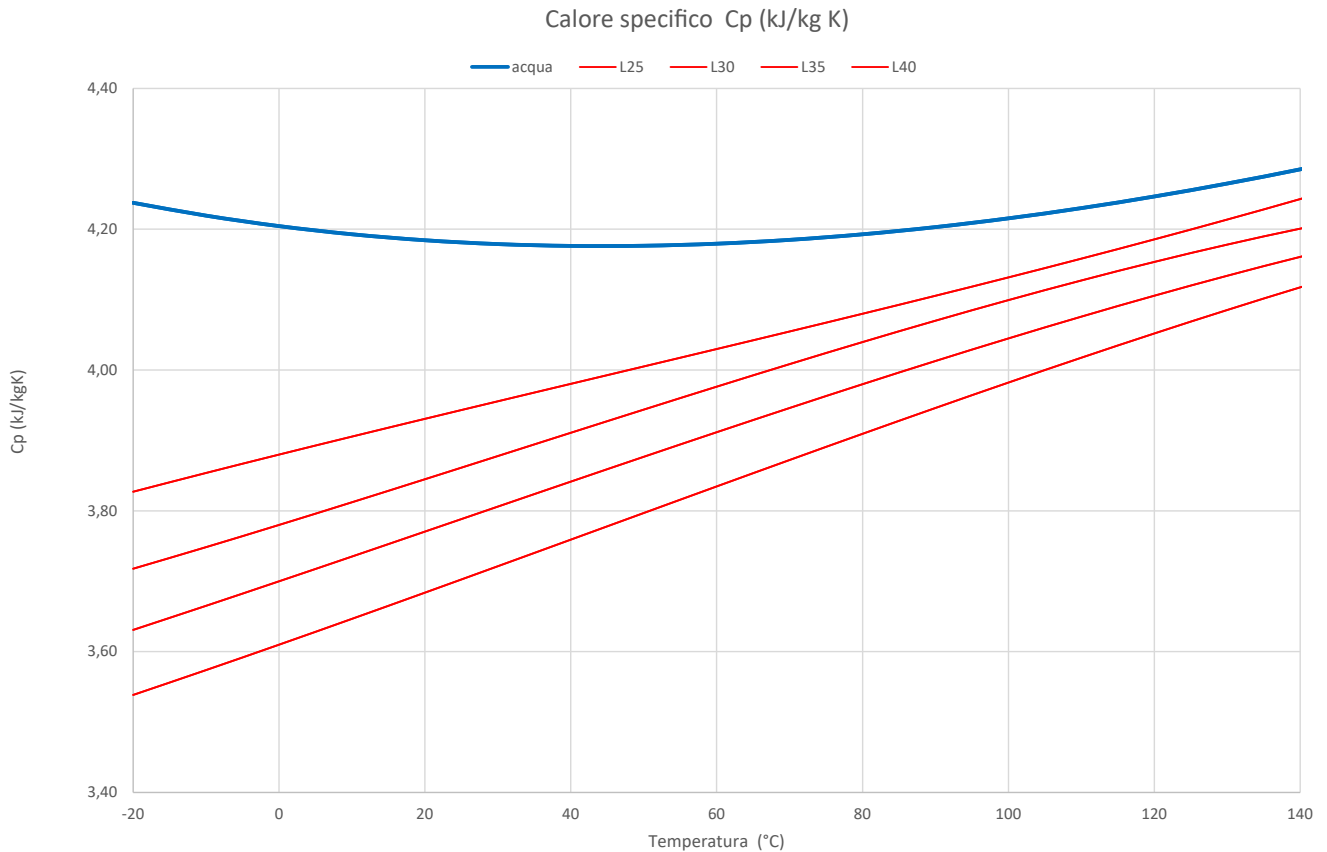
Substance type: propylene

Full Code: L: 200: 'PPG Tfr LA5'

Description: propylene glycol solution in variable concentration

T (°C)	L25 (25%)		L30 (30%)		L35 (35%)		L40 (40%)	
	cp	density	cp	density	cp	density	cp	density
	kJ/(kg K)	kg/m3	kJ/(kg K)	kg/m3	kJ/(kg K)	kg/m3	kJ/(kg K)	kg/m3
-20	3,83		3,72		3,63		3,53	1058
-10	3,85	1033	3,75	1040	3,66	1047	3,57	1054
0	3,88	1031	3,78	1037	3,70	1043	3,61	1049
10	3,90	1028	3,81	1033	3,73	1039	3,64	1044
20	3,93	1024	3,85	1029	3,77	1034	3,68	1039
30	3,95	1020	3,88	1024	3,80	1029	3,72	1033
40	3,98	1015	3,91	1019	3,84	1023	3,76	1027
50	4,00	1010	3,94	1013	3,87	1017	3,79	1021
60	4,03	1004	3,98	1007	3,91	1010	3,83	1014
70	4,05	997	4,01	999	3,94	1004	3,87	1007
80	4,08	991	4,04	993	3,98	997	3,91	1000
90	4,10	984	4,07	986	4,01	989	3,94	993
100	4,13	977	4,10	979	4,04	982	3,98	985

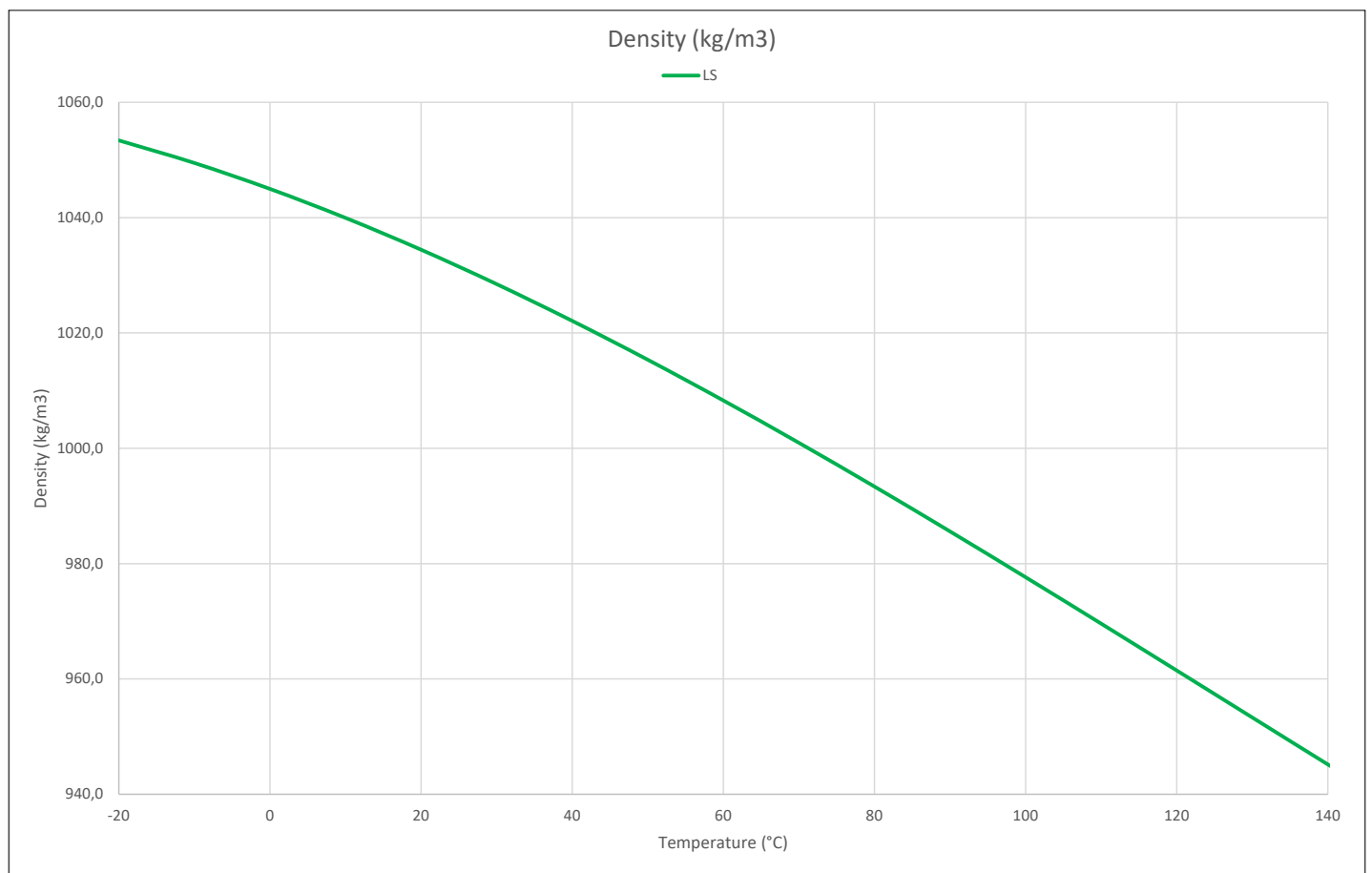
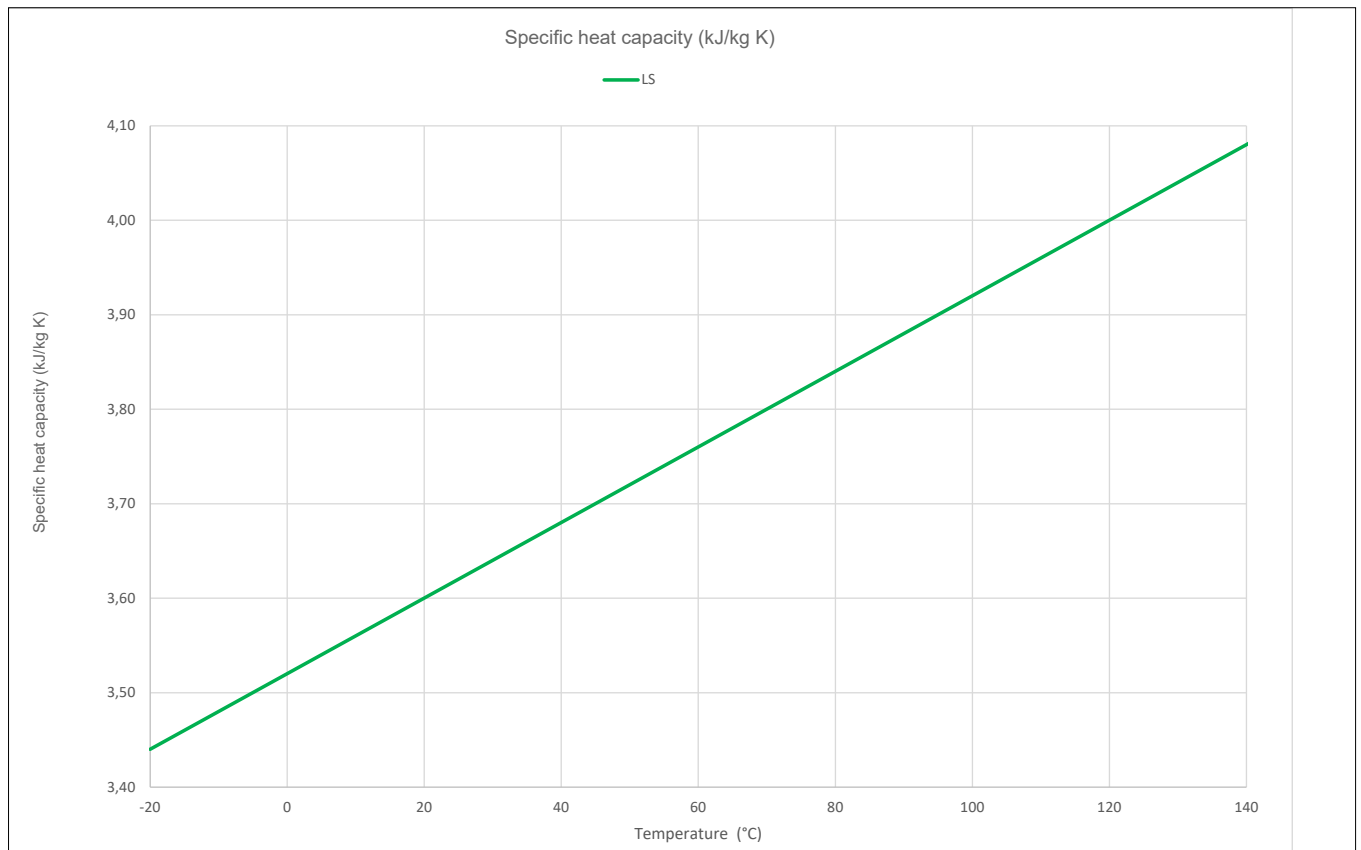
N.B: The intermediate concentrations are interpolated. For concentrations below 25% the values are interpolated with respect to pure water (0% concentration).



CODE 201**Substance type:** propylene**Full Code:** LS: 201: 'PPG Tfr LS A5'**Description:** ready-made propylene glycol solution in a single concentration

T (°C)	LS	
	cp	density
	kJ/(kg K)	kg/m ³
-20	3,44	1053
-10	3,48	1049
0	3,52	1045
10	3,56	1040
20	3,60	1034
30	3,64	1029
40	3,68	1021
50	3,72	1015
60	3,76	1008
70	3,80	1001
80	3,84	993
90	3,88	986
100	3,92	977

N.B: Concentrations other than the product as supplied are not allowed.



CODE 300

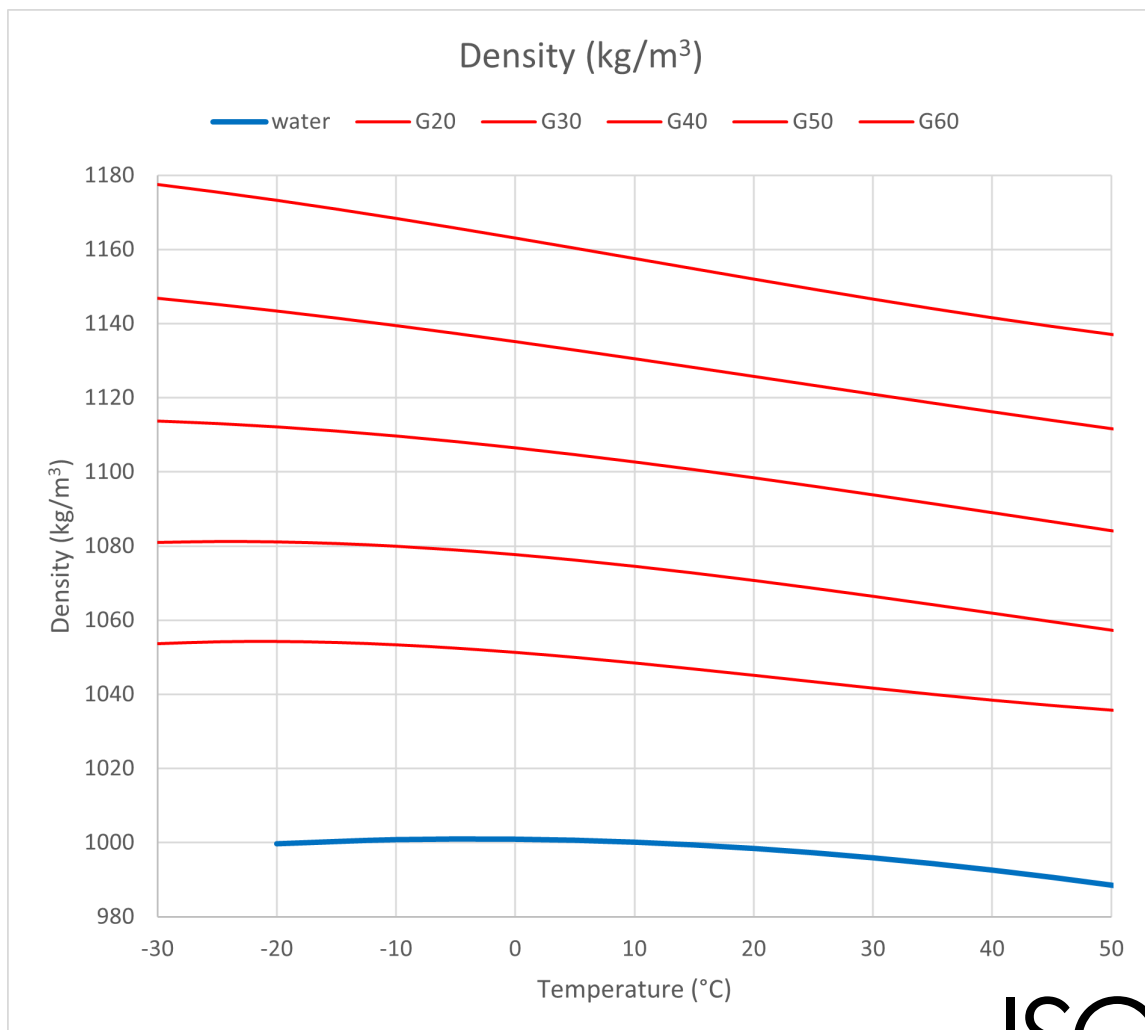
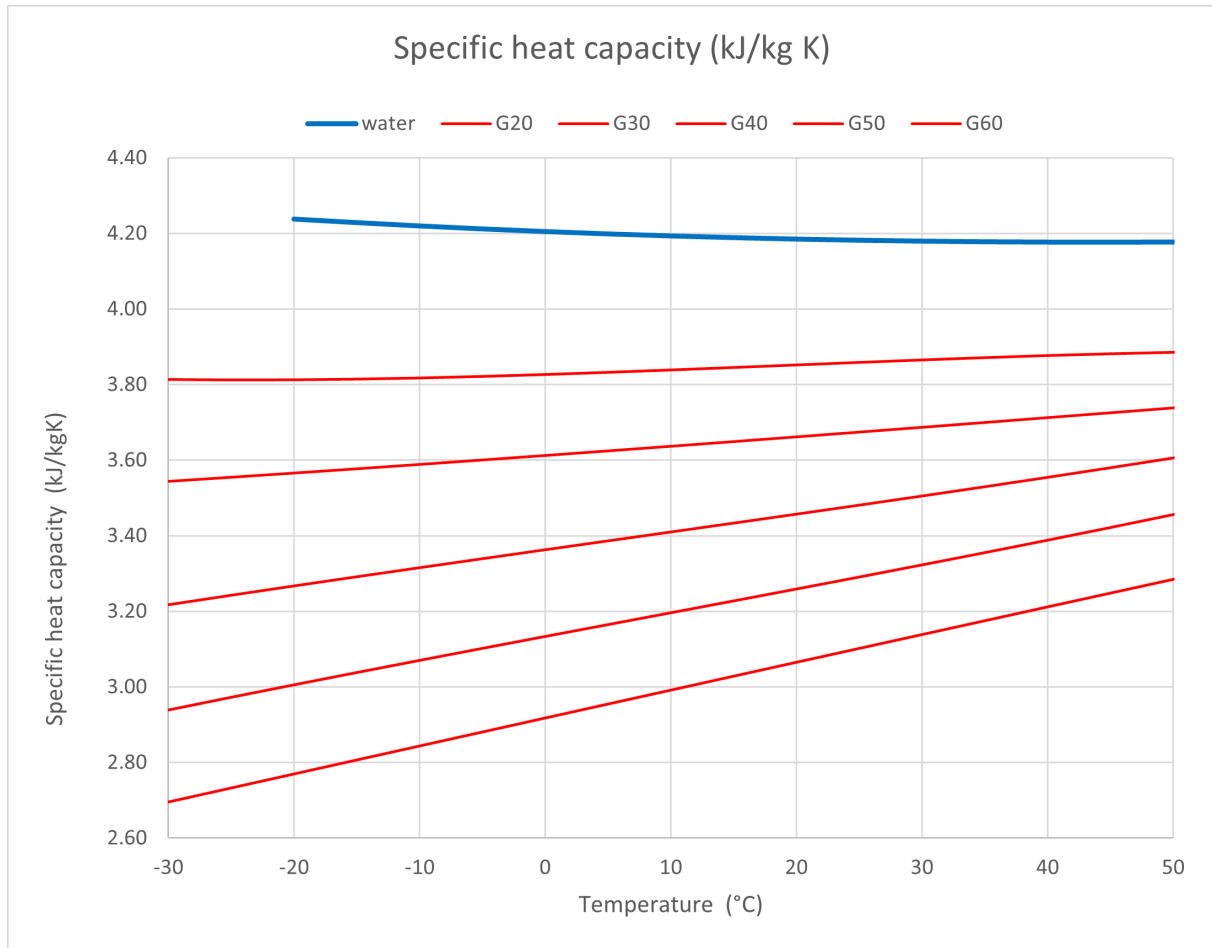
Substance type: Glycerol

Full Code: G:300: 'Ecogel G'

Description: glycerol solution in variable concentration

T (°C)	G20		G30		G40		G50		G60	
	cp	density	cp	density	cp	density	cp	density	cp	density
	kJ/(kg K)	kg/m ³	kJ/(kg K)	kg/m ³	kJ/(kg K)	kg/m ³	kJ/(kg K)	kg/m ³	kJ/(kg K)	kg/m ³
-30									2.70	1177
-25									2.73	1175
-20							3.01	1143	2.77	1175
-15					3.29	1111	3.04	1142	2.81	1171
-10					3.32	1110	3.07	1140	2.84	1168
-5	3.82	1052	3.60	1079	3.34	1108	3.10	1137	2.88	1166
0	3.83	1051	3.61	1078	3.36	1106	3.13	1135	2.92	1163
5	3.83	1050	3.63	1076	3.39	1105	3.17	1133	2.96	1160
10	3.84	1048	3.64	1075	3.41	1103	3.20	1131	2.99	1158
15	3.85	1047	3.65	1073	3.43	1101	3.23	1128	3.03	1155
20	3.85	1045	3.66	1071	3.46	1098	3.26	1126	3.07	1152
25	3.86	1043	3.68	1069	3.48	1096	3.29	1123	3.10	1150
30	3.87	1042	3.69	1066	3.51	1094	3.32	1121	3.14	1147
35	3.87	1040	3.70	1064	3.53	1091	3.36	1119	3.18	1144
40	3.88	1038	3.71	1062	3.56	1089	3.39	1116	3.21	1141
45	3.88	1037	3.73	1060	3.58	1087	3.42	1114	3.25	1139
50	3.89	1036	3.74	1057	3.61	1084	3.46	1112	3.29	1137

N.B: The intermediate concentrations are interpolated. For concentrations below 25% the values are interpolated with respect to pure water (0% concentration).





MANUAL REVIEWS

REVIEW	DATE	DESCRIPTION
MAN_CS611_ Thermal Fluids Manual: Liquids Other Than Water_IT_EN_R00	02/05/2025	MANUAL CREATED

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