

GLYCOL CONCENTRATION CORRESPONDING FREEZE POINT

ETHYLENE GLYCOL

Density (g/cm ³) @20°C	%by wt	%by vol	Freeze Point °C		
1.000	0	0.0	0		
1.001	2	1.8	-1		
1.002	3	2.7	-1		
1.003	4	3.6	-1		
1.004	5	4.4	-2		
1.006	6	5.4	-2		
1.007	7	6.3	-2		
1.008	8	7.2	-3		
1.010	9	8.2	-3		
1.011	10	8.9	-3		
1.013	12	10.9	-4		
1.016	14	12.8	-5		
1.019	16	14.6	-6		
1.021	18	16.5	-7		
1.024	20	18.1	-8		
1.030	24	22.0	-10		
1.035	28	25.8	-13		
1.041	32	29.6	-16		
1.046	36	33.5	-20		
1.051	40	37.5	-24		
1.057	44	41.5	-28		
1.062	48	45.5	-33		
1.067	52	49.6	-39		
1.072	56	53.7	-45		
1.077	60	57.8	-51		

PROPYLENE GLYCOL*

Density (g/cm ³) @20°C	%by wt	%by vol	Freeze Point °C		
1.000	0	0.0	0		
1.003	4	3.8	-1		
1.006	8	7.7	-2		
1.009	12	11.6	-4		
1.012	16	15.5	-5		
1.016	20	19.4	-7		
1.018	22	21.4	-8		
1.020	24	23.4	-9		
1.022	27	26.4	-11		
1.025	30	29.4	-13		
1.027	32	31.4	-14		
1.029	34	33.5	-16		
1.031	37	36.5	-18		
1.034	40	39.6	-21		
1.036	42	41.6	-22		
1.038	45	44.7	-27		
1.040	48	47.8	-30		
1.041	50	49.9	-34		

Due to the nature of propylene glycol, concentration greater than 50% must be performed by a refractometer, as specific gravity determinations are unreliable
 $^{\circ}\text{F}=(^{\circ}\text{C}\times 1.8)+32$