



Speciality Fluids Division

Technical Service

Using Kilfrost LV Fluids with MEG and MPG Refractometers

Providing continuous technical support, Kilfrost have created a conversion table for customers who use a refractometer displaying MEG or MPG volume concentrations and freeze points. Customers who use a standard refractometer should continue to use Refractive Index (RI) values.

Kilfrost GEO, AIR and ALV

% v/v	Freezing Point (°C)	Refractive Index	Equivalent Vol% on MEG Refractometer	Equivalent MEG Freeze Point (°C)	Equivalent Vol% on MPG refractometer	Equivalent MPG Freeze Point (°C)
24	-10	1.3637	28	-14	26	-10
32	-15	1.3733	36	-21	36	-16
35	-17.5	1.3769	40	-25	40	-19
39	-20	1.3817	44	-29	44	-23
50	-30	1.3949	57	-48	57	-40
60	-40	1.4069	N/A	N/A	N/A	N/A

Kilfrost ALV^{PLUS} and GEO^{PLUS}

% v/v	Freezing Point (°C)	Refractive Index	Equivalent Vol% on MEG Refractometer	Equivalent MEG Freeze Point (°C)	Equivalent Vol% on MPG refractometer	Equivalent MPG Freeze Point (°C)
27	-10	1.3647	29	-15	28	-11
35	-15	1.3739	38	-22	38	-17
39	-17.5	1.3784	42	-26	41	-20
42	-20	1.3817	45	-30	44	-24
55	-30	1.3958	57	-49	57	-41
65	-40	1.4062	N/A	N/A	N/A	N/A

For example, for 35 vol% dilution of ALV (-17.5 °C freeze point), this should read as 40 vol% and -25 °C freeze point on a MEG refractometer or 40 vol% and -19 °C freeze point on an MPG refractometer.

If you have any questions regards any of the information provided in this technical bulletin, please contact the Kilfrost technical team on (01434) 320332.

October 2022