



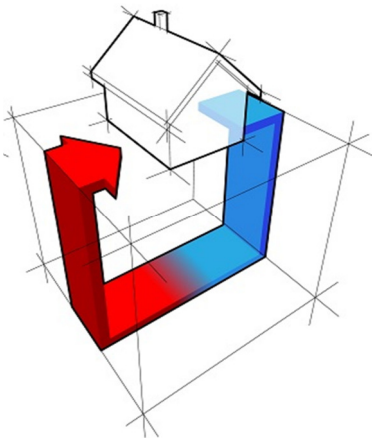
Kilfrost GEO

The higher efficiency, non-toxic alternative to MEG and MPG for closed loop ground and water source heat pumps

Product Description

Kilfrost GEO is a fluid engineered to increase both the performance and safety of closed loop ground and water source heat pumps. Systems using Kilfrost GEO will benefit from lower pressure drops, reducing pumping energy and costs, giving a higher overall efficiency. It will outperform both Mono Ethylene Glycol (MEG) and ethanol based fluids, with an enhanced safety and sustainability profile.

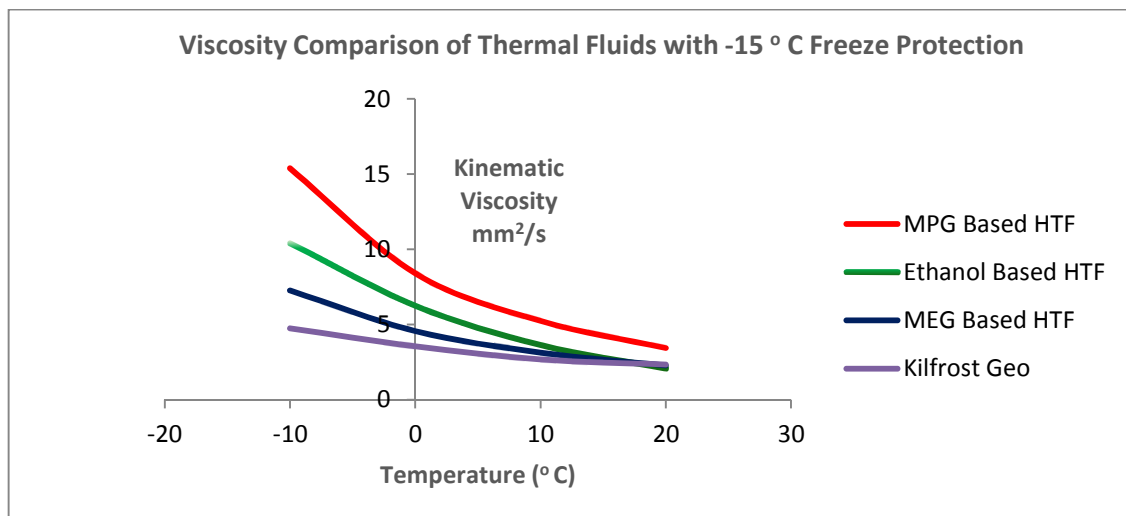
When replacing other more viscous fluids such as Mono Propylene Glycol (MPG) or glycerol in existing systems, customers will benefit from immediate system performance leading to long term energy savings.



Key Features of Kilfrost GEO

- Higher performance non-toxic heat transfer fluid
- Outperforms MEG, MPG, Bio-PDO and ethanol based heat transfer fluids
- Delivers lower system pressure drop and lower pumping costs
- Superior environmental profile
- Free from nitrates, nitrites, borates, heavy metals and phosphates
- Created to improve MIS 3005 Compliant Collector Design
- Optimum operating temperature range -25°C to +25°C

Viscosity Comparison





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Product Data

Freeze Protection on Dilution			Physical Data (100%)	
Dilution %v/v	Freeze Point (°C)	Refractive Index	Property	Value
25	-10	1.3638	pH	8.5 – 9.5
30	-15	1.3681	Refractive index	1.430 – 1.448
40	-20	1.3796	Density (20°C)	1.300 – 1.380
50	-30	1.3915	Boiling Point (°C)	Ca. 105
60	-40	1.4002	German Water Hazard	WGK1

User Guidelines

As per BSRIA guide BG29/2012, all pipework should be cleaned and sanitised to remove all physical debris and biological growth prior to the installation of a thermal fluid. For added protection, Kilfrost GEO is available pre-diluted with de-ionised water to the required level of freeze protection.

Monitoring

A Thermal Fluid Test Kit is available from Kilfrost to monitor the health of Kilfrost GEO as part of a routine maintenance schedule. In addition, Kilfrost offers a service of comprehensive fluid health checks to its customers

Dosage

The dilution rate depends on the freeze point required by the system:

- Product concentration should not be diluted below 25% v/v
- Product dilutions more than 30% v/v will give optimal corrosion and scale protection
- Kilfrost GEO should not be added to systems that already contain other heat transfer fluids, as this may result in lost performance and poorer energy savings

Available Pack Sizes: 25, 215 and 1000 litre and bulk container sizes

