The Low Viscosity Alternative

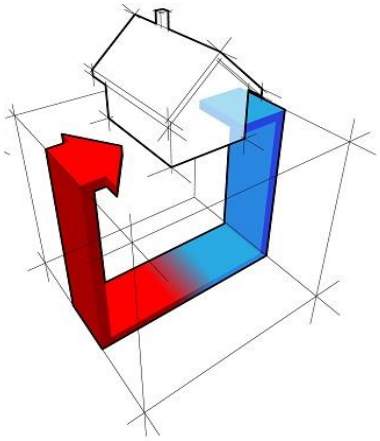
Kilfrost GEO

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.

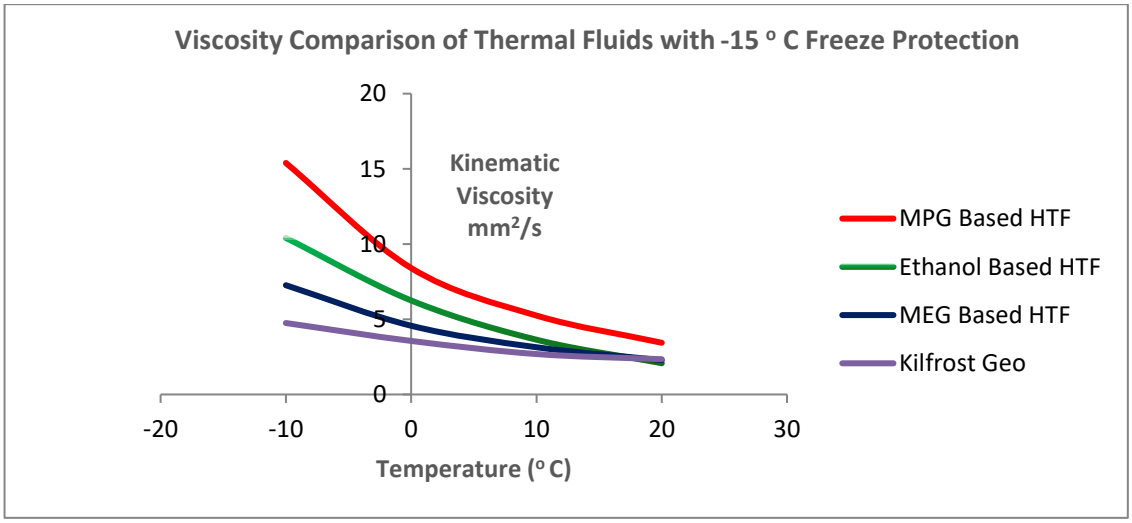
When replacing other more viscous fluids such as Mono Propylene Glycol (MPG) in existing systems, customers will benefit from immediate system performance leading to long term energy savings.



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**
- **Tested to and exceeds ASTM D1384-05 corrosion test standard at 88°C**
- **Free from nitrates, nitrites, borates and heavy metals**
- **Optimum operating temperature range -40°C to +40°C**

Viscosity Comparison



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Product Data

Freeze Protection on Dilution

Dilution %v/v	Freeze Point (°C)	Refractive Index
24	-10	1.3631
32	-15	1.3727
35	-17.5	1.3769
39	-20	1.3811
50	-30	1.3949
60	-40	1.4063

Physical Data (100%)

Property	Value
pH	9.5-10.5
Refractive Index	1.4420 – 1.4450
Density (g/cm^3, 20°C)	1.3550 – 1.3700
Boiling Point (°C)	Ca. 105
German Water Hazard	WGK1

User Guidelines

As per BSRIA guide BG29 (latest edition), 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. Do not use in systems containing galvanized pipes, tanks, or fittings, or in systems with lead containing soft solder.

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 20% v/v
- 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

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