

Thermatrans Plus SP

Description

Thermatrans Plus SP is a high performance concentrated, non-toxic high temperature rated heat transfer fluid antifreeze based on mono-propylene glycol and formulated with vaporisable inhibitors designed specifically for use in solar thermal systems.

The inhibitor package included in Thermatrans Plus SP provides exceptional protection against a range of metals and has been tested according to the internationally recognised ASTM-D1384 corrosion testing standard.

Thermatrans Plus SP is readily biodegradable and will not persist in the environment or accumulate.

Features and benefits

- **Designed for use in Solar Thermal Systems**
- **Protects against freezing down to -45 °C (depending on dilution)**
- **Non-Toxic**
- **Protects against corrosion (ASTM D1384 Tested), scale & sludge formation**
- **Contains vaporisable corrosion inhibitors for added protection at high temperatures**
- **Buffered to resist degradation and acidification**
- **Temperature range -45 to 200 °C**

Thermatrans Plus SP contains a comprehensive inhibitor package including pH buffers and vaporisable corrosion inhibitors to withstand the high temperatures that can be encountered in a solar thermal system. However, as with all mono-propylene glycol based solar thermal fluids, Thermatrans Plus SP must not be exposed to temperatures greater than 170 °C for extended periods of time (Stagnation Events) as all glycols will begin to crack after prolonged exposure to such temperatures.

Monitoring

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

Dosage

The dilution rate depends on the freeze protection required by the system.

- Thermatrans Plus SP should not be diluted to below 25 % v/v

Shelf life and pack sizes

Thermatrans Plus SP has a shelf life of 2 years and is available in 25, 215, 1000 litre container sizes.

The Kilfrost Speciality Fluids Division offers a range of heat transfer fluids which are used in a wide variety of heating and cooling applications.

Global leaders for over 80 years, the Kilfrost brand is synonymous with innovation and technical excellence and continues to lead the way in safety critical markets worldwide.



If you require any further technical, health and safety information or to receive a quotation, please contact Kilfrost: info@kilfrost.com Tel: +44 (0)1434 320 332 Fax: +44 (0) 191 230 0426

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Dilution % v/v	Freeze point	Density @ 20°C	Refractive Index
25	-9	1.0218	1.3599
35	-15	1.0288	1.3699
40	-20	1.0323	1.3749
50	-30	1.0410	1.3897

The above indicated dilutions are also available from Kilfrost as ready-to-use products diluted with de-ionised water for optimum scale and corrosion protection.

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, Thermatrans Plus SP is available pre-diluted with de-ionised water to the required level of freeze protection.

Physical properties

Property	Test Method	Unit	Value
Appearance	Visual	N/A	Blue Liquid
Boiling Point @ 1013mbar	ASTM D1120-11	°C	ca 151
Density @ 20°C	ASTM D7042-11	gcm ⁻³	ca 1.04
Dynamic Viscosity @ 20°C	ASTM D7042-11	mPa.s	ca 54.0
Flash Point (CoC)	ASTM D92	°C	ca 108
Kinematic Viscosity @ 20°C	ASTM D7042-11	mm ² / s	ca 51.8
Pour Point	1P15	°C	<-25
pH @ 20°C (33% Vol in water)	ASTM E70-07	pH	8.2 - 9.6
Refractive Index @ 20°C	ASTM D1747-09		ca 1.431
Reserve Alkalinity	ASTM D1121	mls HCl (0.1M)	>10
Surface Tension @ 20°C (33% Vol in water)	ASTM D 1331	mN/m	ca 37
Water Hazard Classification		WGK1	

All properties in concentrate form unless stated

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This product is manufactured in a plant whose quality management system is certified/registered as being in conformity with ISO 9001