

Thermera

Thermera is always delivered as a ready-to-use solution

Thermera is sold as a ready-to-use solution in 25-litre plastic containers, in 200-litre barrels, and in larger fluid containers according to the customer's requirements.

The standard products delivered are Thermera -15 and Thermera -35.

Thermera -15

Content analysis of the fluid:

Betaine (trimethylglycine), about 35 w-pct

Ion exchanged water, about 64%

Corrosion inhibitor, less than 1%

Odourant, less than 1%

Thermera -15 is suitable to be used within the temperature range of -15°C – +110°C

Thermera -35

Content analysis of the fluid:

Betaine (trimethylglycine), about 50 w-pct

Ion exchanged water, about 49%

Corrosion inhibitor, less than 1%

Odourant, less than 1%

Thermera -35 is suitable to be used within the temperature range of -35°C – +110°C



Thermera

heat transfer fluid

A natural solution for heat transfer in HVAC systems



Thermera® - nature's gift to the HVAC industry

Thermera®, a new heat transfer fluid with extremely low environmental impact, was developed and tested in co-operation with end-users and raw material manufacturers. Thermera® is ideal for antifreeze use in HVAC systems.

An environmentally acceptable Betaine based heat transfer fluid

The main raw materials of Thermera® heat transfer fluid are water-soluble and biodegradable betaine, (a co-product obtained from the sugar manufacturing process), and water. Betaine is a natural product, which makes Thermera a product that has an extremely low impact on the environment. Thermera's thermal performance has been found to be equal to that of conventional heat transfer fluids. Moreover, Thermera offers the additional advantages of excellent cold-flow and anti-corrosive features, which have been further improved with environmentally benign additives. The life cycle costs of Thermera are easily competitive with those of glycols.

Thermera is designed for use in closed circuits operating within the temperature range of -45°C - +110°C. As it is non-toxic and environmentally acceptable, it is suitable for a wide range of applications. Thermera has been found to be technically suitable both for building systems (HVAC) and for industry. New uses are still found, particularly in areas where health issues, as well as environmental aspects, are an important concern.



A natural solution for heat transfer in HVAC systems

Thermera's concept of total economy - life cycle cost efficiency

Good experiences from the field

This product was thoroughly tested and, as expected, the results obtained were very good. Full-scale projects have also tested Thermera in practical circumstances, and the results have been extremely positive. The tests have revealed that a conventional heat transfer fluid can in most cases be replaced with Thermera, with no changes in the operating parameters or dimensions of the equipment. Thermera is already included in several HVAC-system dimensioning computer programs.

At Fortum, the production and logistics of Thermera are controlled with an ISO 9001 certified quality system, which includes continuous quality assurance.

Further information concerning characteristic curves and operational safety, for instance, is available at the website, www.thermera.com.

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