

# LT Termoguard radiant heat reflecting insulation

Our company is the leading producer of a thermal insulating material for Military and Civilian Tents and Shelters.

The tests done by some of our Clients are extremely positive due to a relevant increase of the thermal barrier for both cold and hot temperatures.

The increase performance is between 5°C and more than 10°C, when comparing the performances of Tents manufactured with other thermal insulating materials sold in the international market.

It is very important to underline that the more extreme the temperature is the better the performance.

Our product gives a high comfort inside the Tents with an important energy saving percentage, respecting the Kyoto main lines to limit the greenhouse gases emissions.

Our policy is to satisfy our Clients requirements, following their needs and trying to find a solution for each possible problem: we offer tailor made production and applications.

We can manufacture and supply the linings using different working processes: glue lamination, quilting, coupling as a sandwich, reflecting system.

LT is a self extinguishing material and it is certified UNI EN ISO 9001:200 directly by our production

SELFESTINGHUIISH = it has a flame spreading speed lower than 100 mm per minute

Thickness: 1.2 mm. thick

Weight: from 32 gr/m<sup>2</sup> to 50 gr/m<sup>2</sup> plus the fabric/material used for coupling

is covered in Monaco with the following number

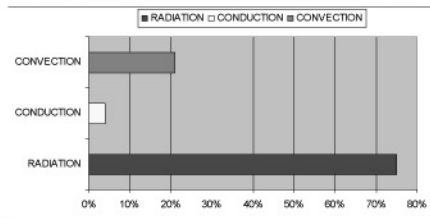
## TEST

Below some tests results:

External Temperature	Old Stantard lining temperature	The formula is: $100 \times \Delta T 1 : \Delta T 2 = Y$			Increasing performances percentage	Company	TEST
		DELTA T1	Lightex lining temperature	DELTA T2			
7°C	11°C	4°C	15°C	8°C	50%	Covered by nda	1
49°C	37°C	12°C	32°C	17°C	29,41176471%	Covered by nda	1
-2°C	4°C	6°C	12°C	14°C	57,14285714%	Ferrino	1
-15,7°C	9,5°C	25,2°C	18,7°C	34,4°C	26,74418605%	Covered by nda	1
-5,4°C	17,6°C	23°C	24,5°C	29,9°C	23,07692308%	Covered by nda	2
38°C	35°C	3°C	30°C	8°C	62,5%	Eurovinil	1
20,5°C	57,12°C	36,62°C	61,57°C	41,07°C	10,83515948%	Covered by nda	1

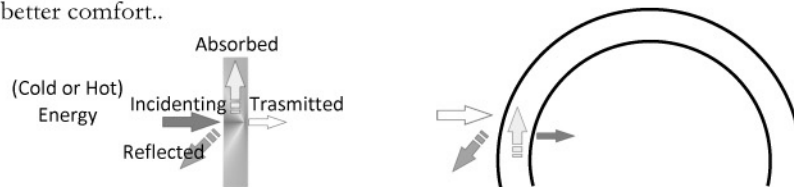
## TECHNICAL DETAILS

This is a brief explanation about thermal performances on the basis of the ISO 6946 Rule which controls the calculation system for reflecting surfaces: Physics teaches that heat transfer happens in 3 ways: conduction, convection and radiation.



- Convection:** Steam, moisture: if you put your hand above a boiling pot, you will feel heat in the form of steam. This is convective heat transfer.
- Conduction:** Direct contact: if you touch a pot on the stove, this is conductive heat transfer.
- Radiation:** Electromagnetic: step outside on a sunny day and feel the sun's rays on your face. You are feeling radiant heat transfer. All objects above absolute zero (-459.7 degrees F.) emit infrared rays in a straight line in all directions.

A radiant barrier *reflects* radiant heat energy instead of trying to absorb it. What does this mean in your home or business? During winter, 50-75% of the heat lost through the ceiling/roofing system and 65-80% of the heat lost through the walls, is radiant. In summer, *up to 93% of heat gain is radiant*. A portion of the spreading heat through radiation, is reflected while another important heat portion, is absorbed by our material, as it is shown in the picture. Only a small percentage of heat energy will enter inside the tent: this is the reason why we can get an excellent energy saving and a better comfort..



This results shows that the tent has very high thermal insulation performances, both in winter and in summer, giving a steady and comfortable temperature inside.

