

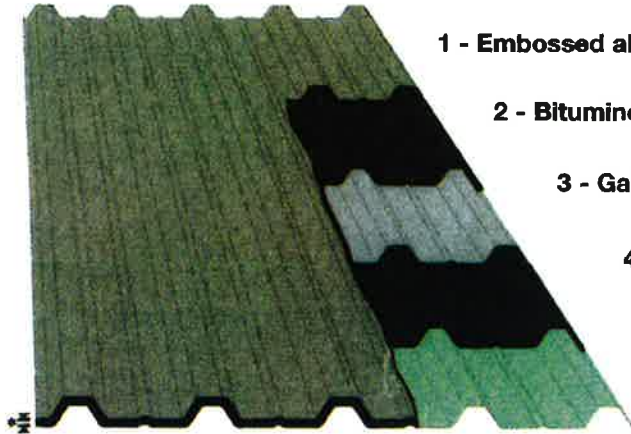
**MULTILAYER
COMPOSED
ISOTHERMIC
STEEL
PLATES FOR ROOFING
AND FACING**



COMPOSED ISOTHERMIC STEEL PLATES FOR ROOFING AND FACING

DESCRIPTION

The MULTILAYERT isothermic plate is made of a resistant core of galvanized steel sheet with thickness 0.45 mm or 0.63 mm, coated on each side with a bituminous facing with mineral loads which are once recovered on the external face with embossed aluminum foil in the natural colours (mill finish), floride yellow, terra cotta, green or black and on internal face with embossed aluminum foil in lacqued green.



1 - Embossed aluminum foil

* 3 mm of total thickness

2 - Bituminous coat with mineral loads

3 - Galvanized steel sheet

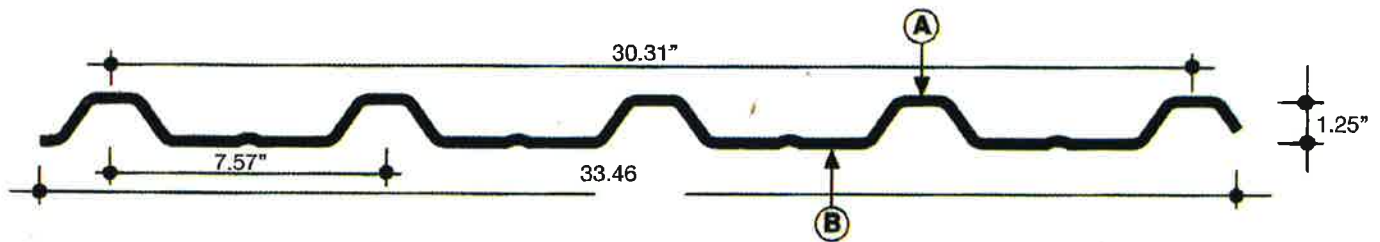
4 - Primary bituminous coat

5 - Embossed aluminum foil

UTILIZATION

- Industrial Buildings
- House
- Farmer and Breeding Buildings
- Warehouses
- Airports
- Office and School Buildings
- Sportive Buildings
- Shopping Centers

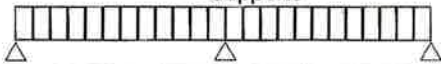
PROFILE

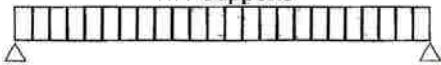


Mechanical Characteristics

Thickness	0.098" (METRIC 2.5 mm)	
Unit Weight MULTILAYERT REGULAR	1.4 lb/ft ²	(METRIC 6.9 kg/m ²)
MULTILAYERT REGULAR	1.7 lb/ft ²	(METRIC 8.5 kg/m ²)

Allowable Span

Three Supports					
					
Loads (lbs / sqft)	16	20	24	29	33
MULTILAYERT Regular (GA 27 = 0.4 mm)	7' - 7"	7' - 0"	6' - 3"	5' - 10"	5' - 6"
MULTILAYERT Ultra (GA 24 = 0.6 mm)	8' - 9"	8' - 2"	7' - 8"	7' - 3"	7' - 0"

Two Supports					
					
Loads (lbs / sqft)	16	20	24	29	33
MULTILAYERT Regular (GA 27 = 0.4 mm)	6' - 5"	5' - 11"	5' - 7"	5' - 3"	4' - 11"
MULTILAYERT Ultra (GA 24 = 0.6 mm)	7' - 5"	6' - 11"	6' - 6"	6' - 2"	7' - 0"

SIZES: Any size or length of sheets may be supplied, allowing even complex roof and facing designs to be undertaken. Nevertheless the use of a maximum of 32' ft. is advisable in order to ease transport and fitting work.

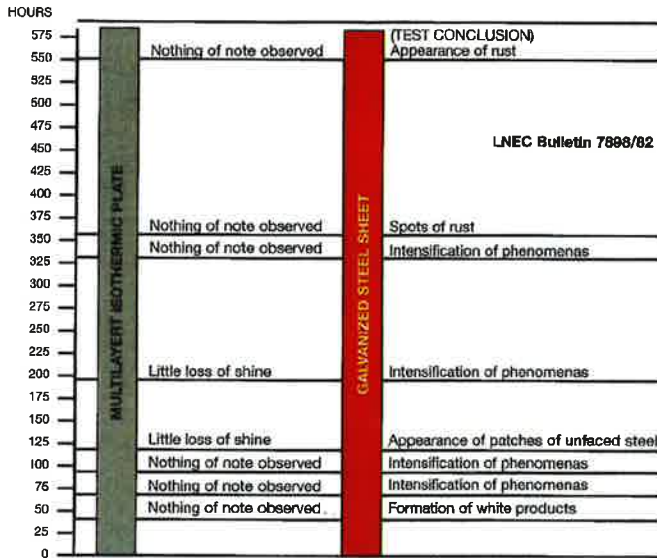
TESTS AND OTHER CHARACTERISTICS

Our experience of more than 16 years guarantees the protection efficacy and confirm the longevity of the MULTILAYERT isothermic plates. Following tests conducted by LNEC - The National Civil Engineering Laboratory, the MULTILAYERT isothermic plate has been officially certified and approved.

RESISTANCE TO CORROSION

The composition characteristics of the MULTILAYERT isothermic plate doesn't require any maintenance, even in aggressive atmospheres.

TESTS CONDUCTED UNDER SEA MIST CONDITIONS



SOUND PROOFING

The protection coats reduce and deaden the disagreeable effects of rain and aerial sounds noise.

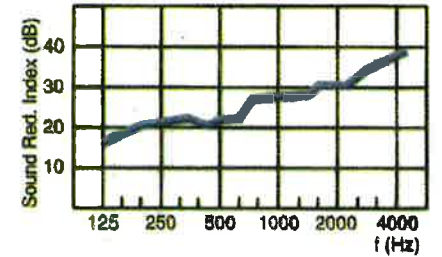
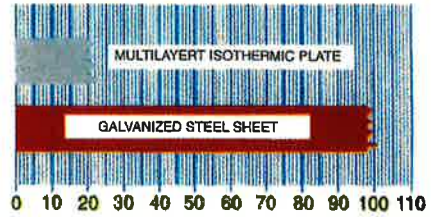
•Compare with the galvanized steel sheet with the same profile, the MULTILAYERT isothermic plate is about 5 times higher in conformity with phonometric tests realized in laboratories.

•Sound insulation of aerial sounds.

The average sound insulation index is 27 dB.

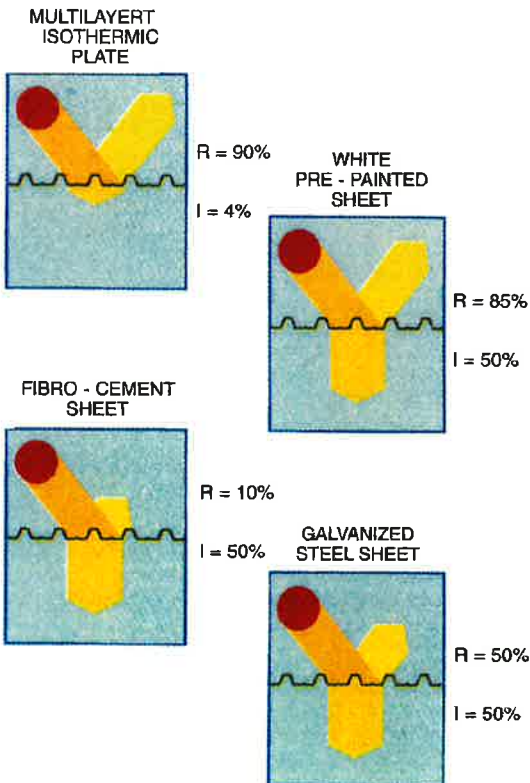
LNEC Bulletin 31/82/NAI

Comparative sound proofing test under artificial rain

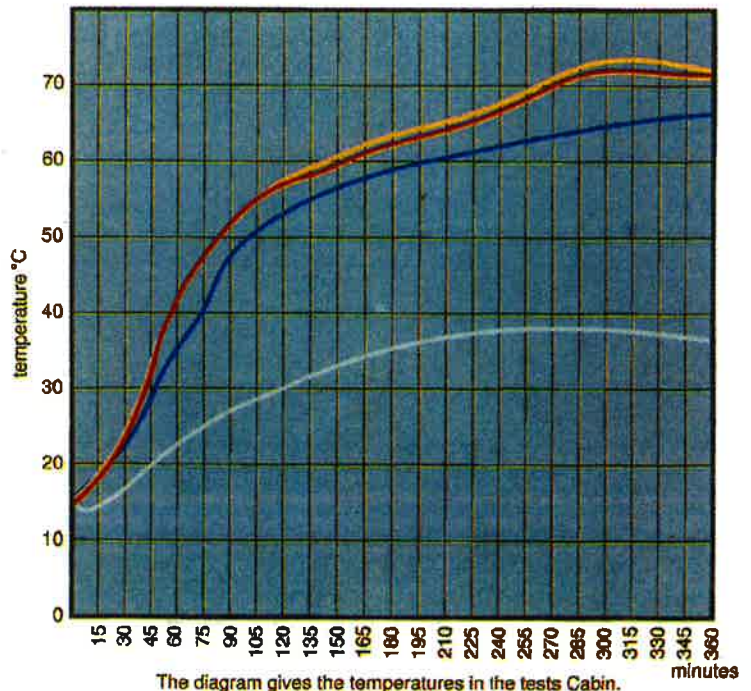


THERMAL INSULATION CAPACITY

Exposed to the sun, the MULTILAYERT isothermic plate avoids the overheating and minimize variations in indoor temperatures which means a very good product to use in buildings without insulation. The reflective capacity (R) reduces the absorbed heat to the roof. Another advantage is to reduce the irradiation capacity (I) limiting the absorbed heat from the roof.



COMPARATIVE TESTS OF THERMAL INSULATION UNDER THE SUN RAYS



The diagram gives the temperatures in the tests Cabin.



ACCESSORIES

•COMPLEMENTARIES

- Translucent sheet, in polyester, 1.10 mm thickness, in desirable lengths.
- Lantern - lights
- Base - Frames

•FINISHINGS

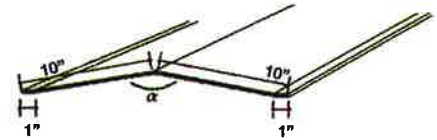
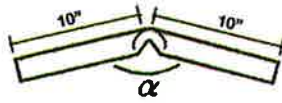


Ridges

In galvanized steel, aluzinc (galvalume) or pre-painted steel sheet in the same colour of the isometric plate, 0.6 mm thickness and developments of 350, 400 or 500 mm:

a) In the same profile of the isometrics plate. The utility width is the same of the isometric plate, i.e. 776 mm.

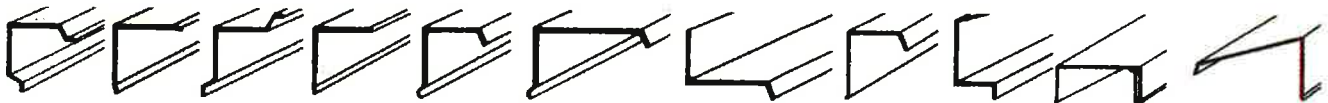
b) Flats. The widths are variables



The α angle will be in function of the roof inclination.

Flashings

May be made in several types with the maximum length of 6000 mm



FIXATIONS

- Foam Fillers in PE for both sides; (a) Valley; (b) Closing up.



- Hex washer head self tapping screw 6.3 x 64 mm in zinc plated carbon steel.



- Shaped hookbolt in aluminum or zinc plated steel with nut, $\phi 6$ mm, with the form and the length adapted to the purlin.

- Star stamping washer in galvanized steel sheet, in the same colour of the isothermic plate, $\phi 32$ mm.



- Water proof washer in bituminous felt, $\phi 25$ mm



- Saddle Washer



TECHNICAL DATA

All undermentioned tests had in view the MULTILAYERT isothermic plate with the external face in natural aluminum (mill finish)

Sea Mist Conditions Capacity	Compared with the galvanized steel sheet, during a test time of 553 hours the isothermic plate shows from 120 hours a little loss of shine as long as the galvanized steel sheet in the first 48 hours shows an intensification of phenomenas came and on the 352 hours presented spots of rust, finishing in the 553 hours with appearance of distinct rust (LNEC Bulletin 7898 / 82)	
Reflective Capacity	90%	
Irradiation Capacity	4%	
Thermal Transmission Capacity	4.15W/m ² °C	
(Average Value)	4.82 Kcal/m ² h.°C	LNEC Bulletin 1/82/NTF
Thermal Resistance	0.021 m ² °C/W	
	0.024 m ² .h °C/Kcal	LNEC Bulletin 1/82/NTF
Sound Proofing Capacity	About 5 times higher than the galvanized steel sheet with the same profile	
(Rain)		
Sound Insulation Capacity	Average sound insulation index =27 dB	LNEC Bulletin 31/82/NAI
(Aerial Sounds)		
Thermic Shock Capacity	After 10 heating and cooling cycles in conformity with the æDirectives Generales de l'UEAtc pour l'agrement des revêtements d'étanchéité de toitures - juillet 1982" (EUAtc General Directives for the Approval of Waterlight Casting for Roofs - July 1982) no alteration was observed	
Variation between admissible temperatures	-30 °C	+80 °C

REPRESENTATIVE



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