

# Thermal VHD



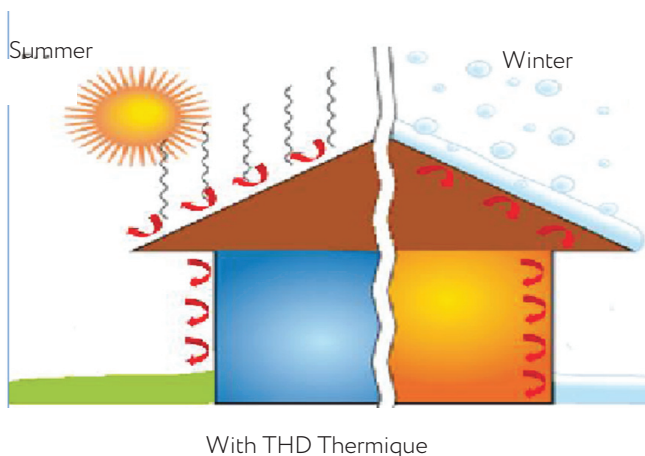
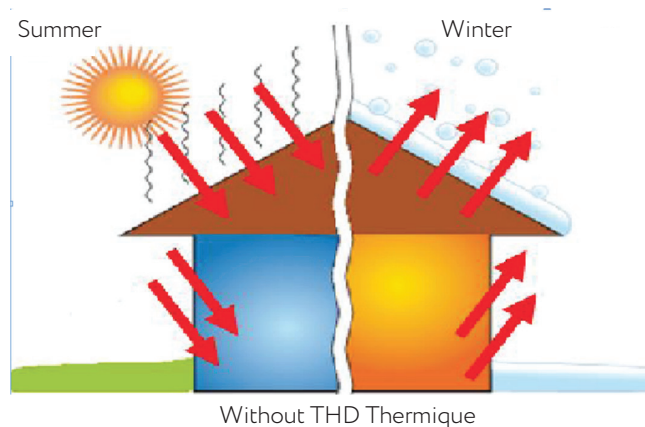
Pre-painted products

## 1 Presentation

Galvanized steel coated with a painting system (average thickness of 25 to 35  $\mu\text{m}$ ), consisting of a primer coat and a Polyester finish coat, made of radiative pigments.

In brief, pigments act as temperature screen from outside to inside building (and vice-versa), gaining:

- Efficiency in both cold and hot environments
- Reflection of the outdoor heat (inside temperature reduced up to 8°)
- Less inside energy needs (heating or air conditioning)



Characteristics:

- Aesthetic: dark colours available
- Technic: thermo-efficient, corrosion high-resistant, good forming ability

Major performances:

Thermal VHD 25  $\mu\text{m}$

	DIN 55928-8	XP 34-301	EN 10169
Corrosion resistance	III	III	RC3
Photochemical resistance (UV)		III	RUV4

Thermal VHD 35  $\mu\text{m}$

	DIN 55928-8	XP 34-301	EN 10169
Corrosion resistance	III	VI	RC4
Photochemical resistance (UV)		III	RUV4

## 2 Use

Particularly elaborated for sustainable and low-energy demanding building markets.

Depending on the building design and implementation, the roofing made of Thermal VHD would save up to 15% of the total energy cost.





# NLMK Europe – Strip Products



## 3 Quality Standards

### 3.1) Organic coating: in compliance with EN 10169

NB: according to its environment protection policy, NLMK supplies coatings and surface treatments free of chromium and heavy metals.

### 3.2) Mechanical properties: defined by the substrate's steel grade and its corresponding norm

Available steel grades:

- Mild steels: DX 51 to DX 53, in compliance with EN 10327
- Structural steels: S220 to S350GD, in compliance with EN 10326

## 4 Coating

### 4.1) Substrate's Metallic coating:

- Double-sided, in compliance with EN10346
- Zinc mass: Z225 - Z275

### 4.2) Finish organic coating:

- Conventional: Top side finish coat
- Optional: double-sided
- Primer layer on reverse side

Properties	Test standard	Criteria	Guarantee	Comments
Thickness	EN-13523-1	P34301 or EN-10169	25 to 35 µm	
Specular gloss	EN-13523-2	P34301 or EN-10169	20 to 50 GU	GU = gloss unit
Bending adhesion	EN-13523-7	P34301 or EN-10169	0.5 T	
Pencil Hardness	ISO 1518		> 1500 g	
Flexibility	EN 13523-7		2 T	
Tropical Test	EN-13523-26	1500 h	-	-
Salt Spray Test	EN-13523-8	EN-10169	360 h	
UV resistance	EN-13523-10	DELTA E ≤ 3 Gloss retention > 80%	2000 h	
Fire resistance	CSTB		M0	

## 5 Range of dimensions

Consult the Data Sheet «Guide & Recommendations»

## 6 Delivery

### Coils:

T/Coils	17,3 t max
Outside diameter	1800 mm max
Inside diameter	508 or 610 mm
Section	1520 mm <sup>2</sup>
Axis	horizontal
Strapping	radial & circumferential
Label	1 inside/ 1 outside
Packaging on request	- rolled-up on cardboard or metallic cylinder - paper or metallic wrapped - wooden cradle
Protection	
Certificate	in compliance with EN 10204

**Sheets & Narrow Strips:** consult us

## 7 Steel processing

The Organic coated steels processing ability depends on the substrate's steel grade.

However, the organic finish coat type and thickness, as well as substrate's properties, might prevent from cutting, forming or welding at usual technical terms.

> Consult us

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