
Mineral Wool Panels

Thermo-insulating and fire resistant roof and wall panels



About us

Under the brand name CORE, ELASTRON S.A. successfully continues the production and distribution of the well known and distinct for their quality composite insulating panels, ECOPANEL[®], for the construction industry including roof and wall cladding solutions (for industrial, commercial, distribution and agricultural buildings).

Types of thermal insulation core

- Mineral wool core (MW) - new product.
- Polyurethane core (PUR).
- Polyisocyanurate core (PIR).

Mineral Wool products range

- Insulating composite panels for roof applications: ECOPANEL[®] type RL-MW.
- Insulating composite panels for wall cladding: ECOPANEL[®] type WL-MW - Visible fix joint.
- Insulating composite panels for architectural wall cladding: ECOPANEL[®] type WLC-MW - Concealed fix joint.
- Ancillary products (ridge, eave, valley gutter, louvers, drip flashing, verges etc.)

Our principles

Our experience in supplying the Greek and European construction industry with high value cladding solutions is based on three basic principles:

- Producing competitive and high quality advanced building materials.
- Supporting and advising Designers, Specialists and Constructors from the design phase through site installation.
- Supplying all products on time and safely to any project.

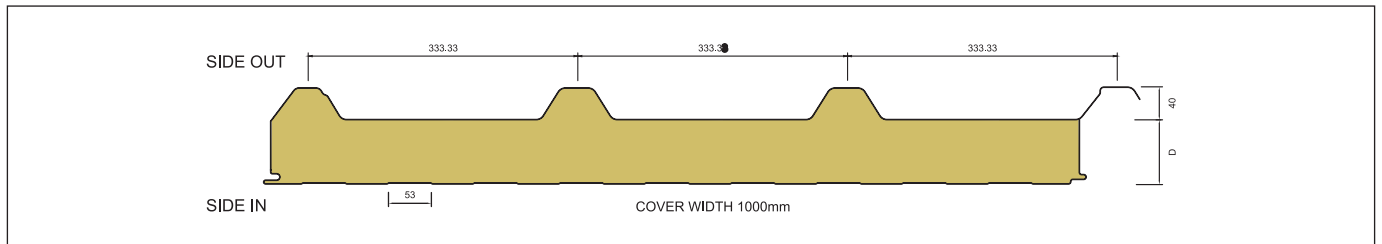
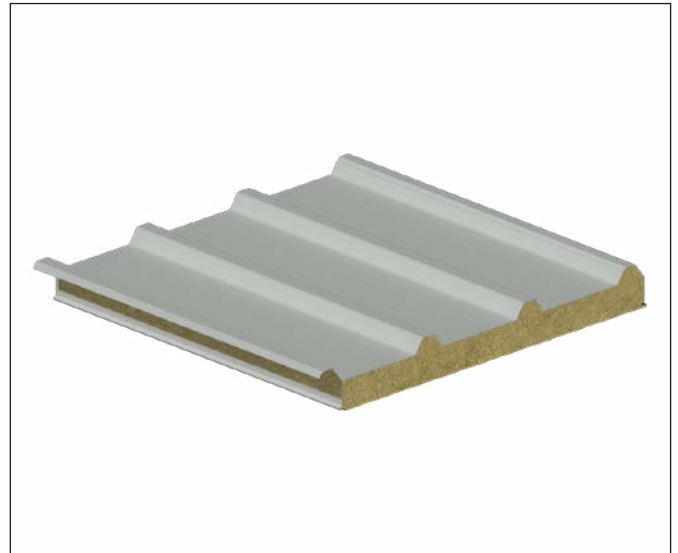
The factors, which differentiate the quality of our products and the service we provide, are:

- Fully automated production unit that fulfills all the requirements of modern composite materials.
- Stringent specifications of the panel's components.
- ECOPANEL[®]'s mineral wool core meets classification A1 according to the EN13501-1.
- ECOPANEL[®]'s polyurethane core is CFC Free and HCFC free. Our company was the first to use harmless blowing agents technology.
- ECOPANEL[®]'s polyisocyanurate core meets classification B-s1-d0 according to the EN13501-1.
- ECOPANEL[®]'s are designed to comply with European Building Regulations and Standards.
- Technical manuals are provided for Building Designers and full assistance to the Constructors.
- A Customer Service Department.

In addition, we supply the construction market with a whole range of fasteners, fillers, sealants and roof-light solution in order to complement the insulated roof and wall cladding solutions.

Special features

- 1 Mineral wool core and adhesives CFC Free & HCFC Free are environmentally friendly and safe for the ozone layer.
- 2 Large radius of bend, which is particularly advantageous for coating of only 25 µm.
- 3 Drilling grooves on the crown, which helps prevent the drill from slipping and thus, the accidental damage of the plastic coating.
- 4 Groove in the longitudinal lap keeps surface water out.
- 5 Design allows the use of fire resistant mastic in the female side of overlap.



Panel Tolerances

Cutting length: ± 5-10 mm (depending on panel's length)

Cover width: ± 2 mm

Thickness: ± 2 mm (D<100 mm) and ± 2% (D>100 mm)

End square: 0,6%

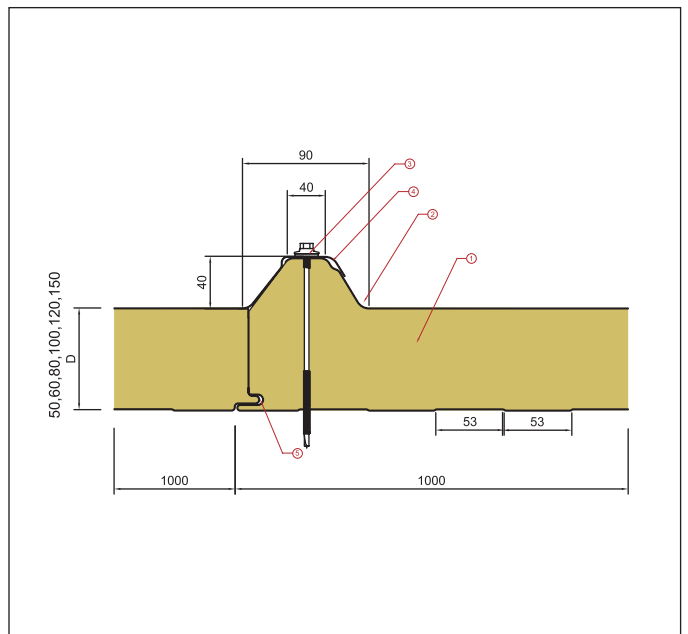
Internal face profilation: Flat or light profiled (Micro-rib, Standard).

Overlap Ecopanel® RL - MW: 50-250 mm

Overlap type: R = right, L = left (sketch given in manuals)

Panel length: Min 2,0 m - Max 13,5 m. Longer panels max 14m upon consultation.

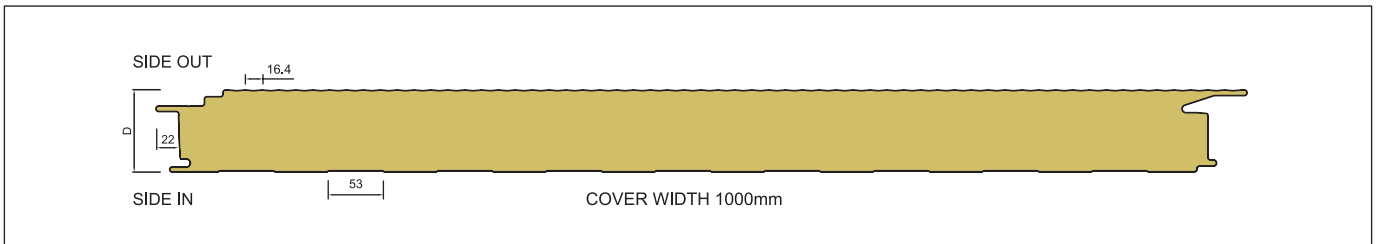
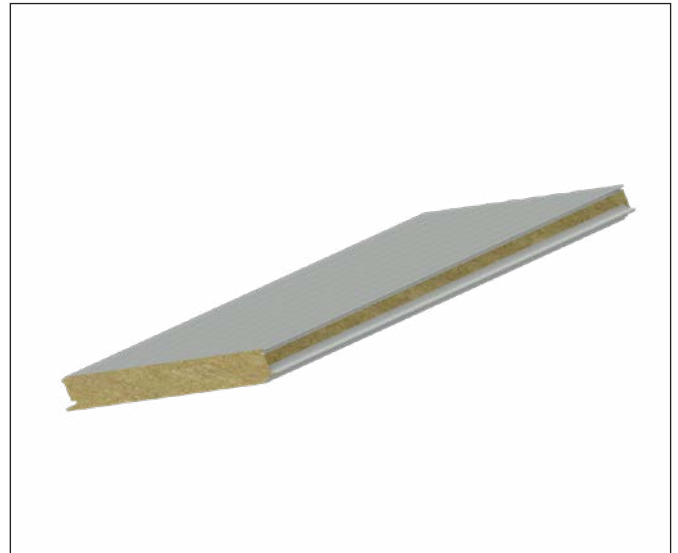
Roof slope: Min 5% when single panel, and Min 8% when overlap joint.



Panel type	Sheer thickness (mm)		Core thickness D (mm)	Weight (kg/m²)	Thermal transmission co-efficient U (W/m² * K)	Fire resistance index	Sound reduction index RW (C; Ctr) (dB)	Fire resistance
	Outer (mm)	Inner (mm)						
RL-MW 50	0,50	0,50	50	14,1	0,688	-	30 (-1 ; -2)	A1 according to EN 13501-1
RL-MW 60	0,50	0,50	60	15,1	0,588	REI 60 / RE120	30 (-1 ; -2)	
RL-MW 80	0,50	0,50	80	17,1	0,456	REI 60 / RE120	30 (-1 ; -2)	
RL-MW 100	0,50	0,50	100	19,1	0,373	RE180 / RE180	31 (-1 ; -2)	
RL-MW 120	0,50	0,50	120	21,1	0,327	RE180 / RE180	31 (-1 ; -2)	
RL-MW 150	0,50	0,50	150	24,1	0,256	RE180 / RE180	31 (-1 ; -3)	

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- 4 Secured concealed fix joint by a normal fastener, which holds both external - internal sheets.



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Cover width: ± 2 mm

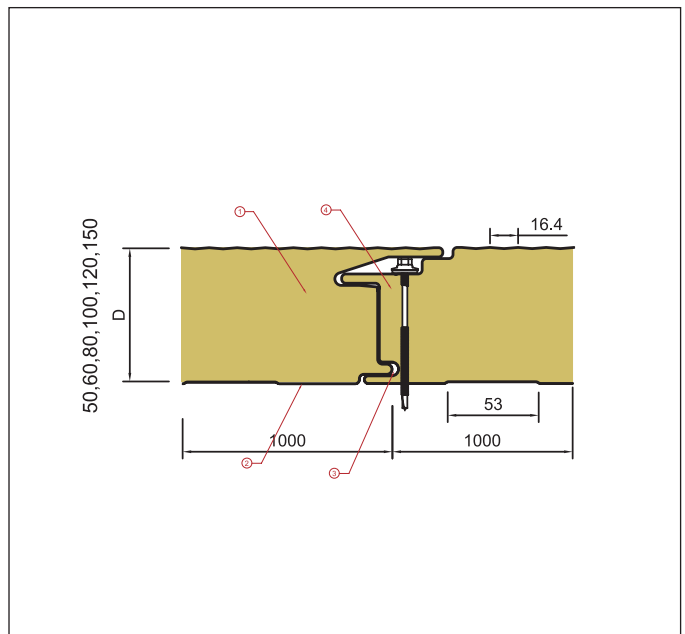
Thickness: ± 2 mm (D<100 mm) and ± 2% (D>100 mm)

End square: 0,6%

Internal face profilation: Flat or light profiled (Micro-rib, Standard).

Panel length: Min 2,0 m - Max 13,5 m. Longer panels max 14m upon consultation.

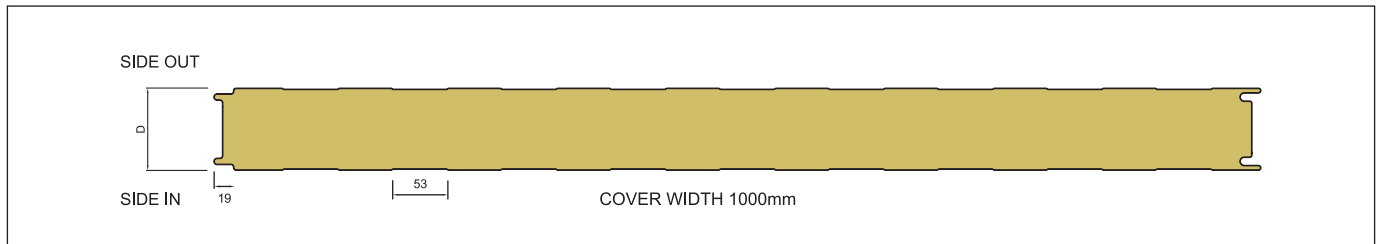
Panel orientation: V=vertical, H=horizontal.



Panel type	Sheer thickness (mm)		Core thickness D (mm)	Weight (kg/m²)	Thermal transmission co-efficient U (W/m² * K)	Fire resistance index	Sound reduction index RW (C; Ctr) (dB)	Fire resistance
	Outer (mm)	Inner (mm)						
WLC-MW 50	0,50	0,50	50	13,6	0,761	-	30 (-1 ; -2)	A1 according to EN 13501-1
WLC-MW 60	0,50	0,50	60	14,6	0,638	-	30 (-1 ; -2)	
WLC-MW 80	0,50	0,50	80	16,6	0,484	E 60 / EI 60 / EW 60	30 (-1 ; -2)	
WLC-MW 100	0,50	0,50	100	18,9	0,390	E 90 / EI 90 / EW 90	31 (-1 ; -2)	
WLC-MW 120	0,50	0,50	120	20,6	0,328	E 90 / EI 90 / EW 90	31 (-1 ; -2)	
WLC-MW 150	0,50	0,50	150	23,6	0,264	E 90 / EI 90 / EW 90	31 (-1 ; -3)	

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Cover width: ± 2 mm

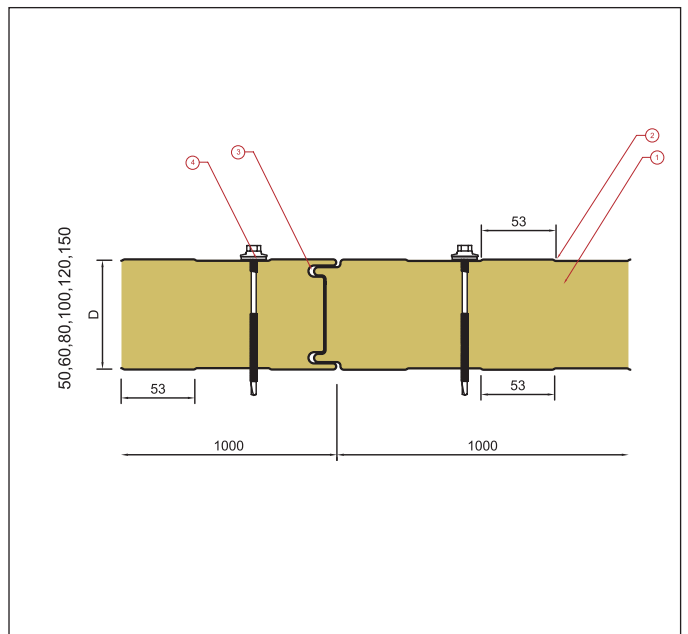
Thickness: ± 2 mm (D<100 mm) and ± 2% (D>100 mm)

End square: 0,6%

Internal face profilation: Flat or light profiled (Micro-rib, Standard).

Panel length: Min 2,0 m - Max 13,5 m. Longer panels max 14m upon consultation.

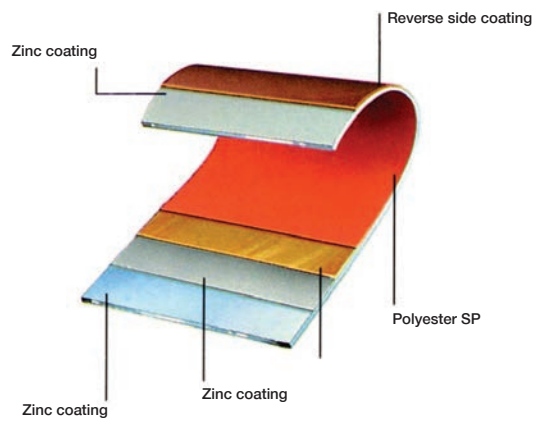
Panel orientation: V=vertical, H=horizontal.



Panel type	Sheer thickness (mm)		Core thickness D (mm)	Weight (kg/m²)	Thermal transmission co-efficient U (W/m² * K)	Fire resistance index	Sound reduction index RW (C; Ctr) (dB)	Fire resistance
	Outer (mm)	Inner (mm)						
WL-MW 50	0,50	0,50	50	13,6	0,753	-	30 (-1 ; -2)	A1 according to EN 13501-1
WL-MW 60	0,50	0,50	60	14,6	0,633	E120 / EI 30 / EW120	30 (-1 ; -2)	
WL-MW 80	0,50	0,50	80	16,6	0,482	E120 / EI 90 / EW 120	30 (-1 ; -2)	
WL-MW 100	0,50	0,50	100	18,9	0,390	E120 / EI 120 / EW 120	31 (-1 ; -2)	
WL-MW 120	0,50	0,50	120	20,6	0,327	E120 / EI 120 / EW 120	31 (-1 ; -2)	
WL-MW 150	0,50	0,50	150	23,6	0,264	E120 / EI 120 / EW 120	31 (-1 ; -3)	

Coatings

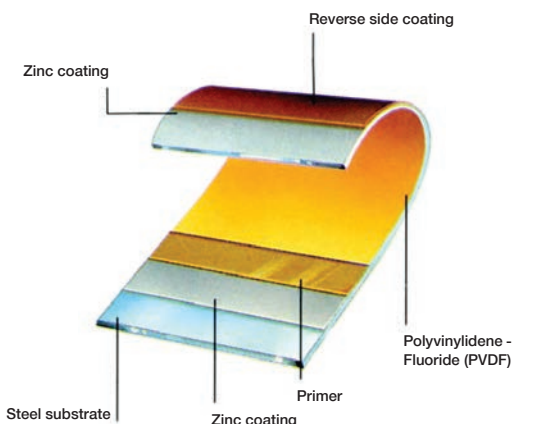
Polyester (SP)



The diagram shows a cross-section of a steel sheet with a Polyester (SP) coating. The top surface has a thin layer of Zinc coating, followed by a thicker layer of Reverse side coating. The bottom surface has a layer of Polyester SP, which is also coated with a thin layer of Zinc coating.

- Anti-corrosion protection.
- Inexpensive top coating suitable for normal environmental conditions.
- Total coating thickness 25 μm .

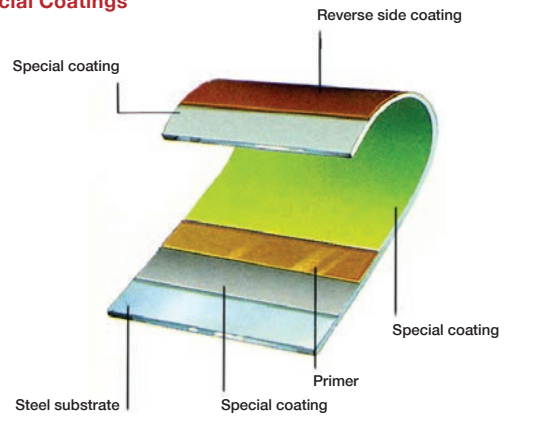
Polyvinylidene - Fluoride (PVDF)



The diagram shows a cross-section of a steel sheet with a Polyvinylidene - Fluoride (PVDF) coating. The top surface has a thin layer of Zinc coating, followed by a thicker layer of Reverse side coating. The bottom surface has a layer of Polyvinylidene - Fluoride (PVDF), which is also coated with a thin layer of Zinc coating. Below the Zinc coating is a Primer layer, and the base is the Steel substrate.

- High anti-corrosion protection.
- High UV rays protection.
- Total coating thickness 25 μm ~ 50 μm .

Special Coatings



The diagram shows a cross-section of a steel sheet with Special Coatings. The top surface has a thin layer of Reverse side coating, followed by a thicker layer of Special coating. The bottom surface has a layer of Special coating, which is also coated with a thin layer of Primer. Below the Primer is the Steel substrate.

- Special coatings under request.
- Higher anti-corrosion protection.
- Higher UV rays protection.
- Total coating thickness 35 μm ~ 60 μm .

Metal sheet material data and properties

Standard type: Hot-dip galvanized steel S220GD~S320GD (EN 10346).

Anti-corrosion protection: Zinc coating Z100 (100gr/m²) - Z275 (275gr/m²) (EN 10346).

Standard coatings: Polyester (SP). Total thickness 25 μm (EN 10169).

Alternative coatings: Polyvinylidene-Fluoride (PVDF) / Special Coatings (under request).

Mineral wool core physical properties

Core: Excellent thermal insulation, Optimized for high Mechanical and Thermal stress, Excellent sound absorption and sound reduction properties, Water repellent and non-hygroscopic, Natural, inorganic, chemically inert, Recyclable and environmentally friendly.

Fire Class: Mineral wool fire class A1 according to the EN13501.

Core type: Mineral wool.

Core density: 100 \pm 10 kg/m³. Different Densities upon consultation.

Adhesion agent: Safe for the environment and ozone layer.

Color palette (RAL range)



The steel sheets with Polyester (SP) coating are in stock in the basic colours of the RAL scale. For steel sheets with different coating and other colour range please contact the sales department.