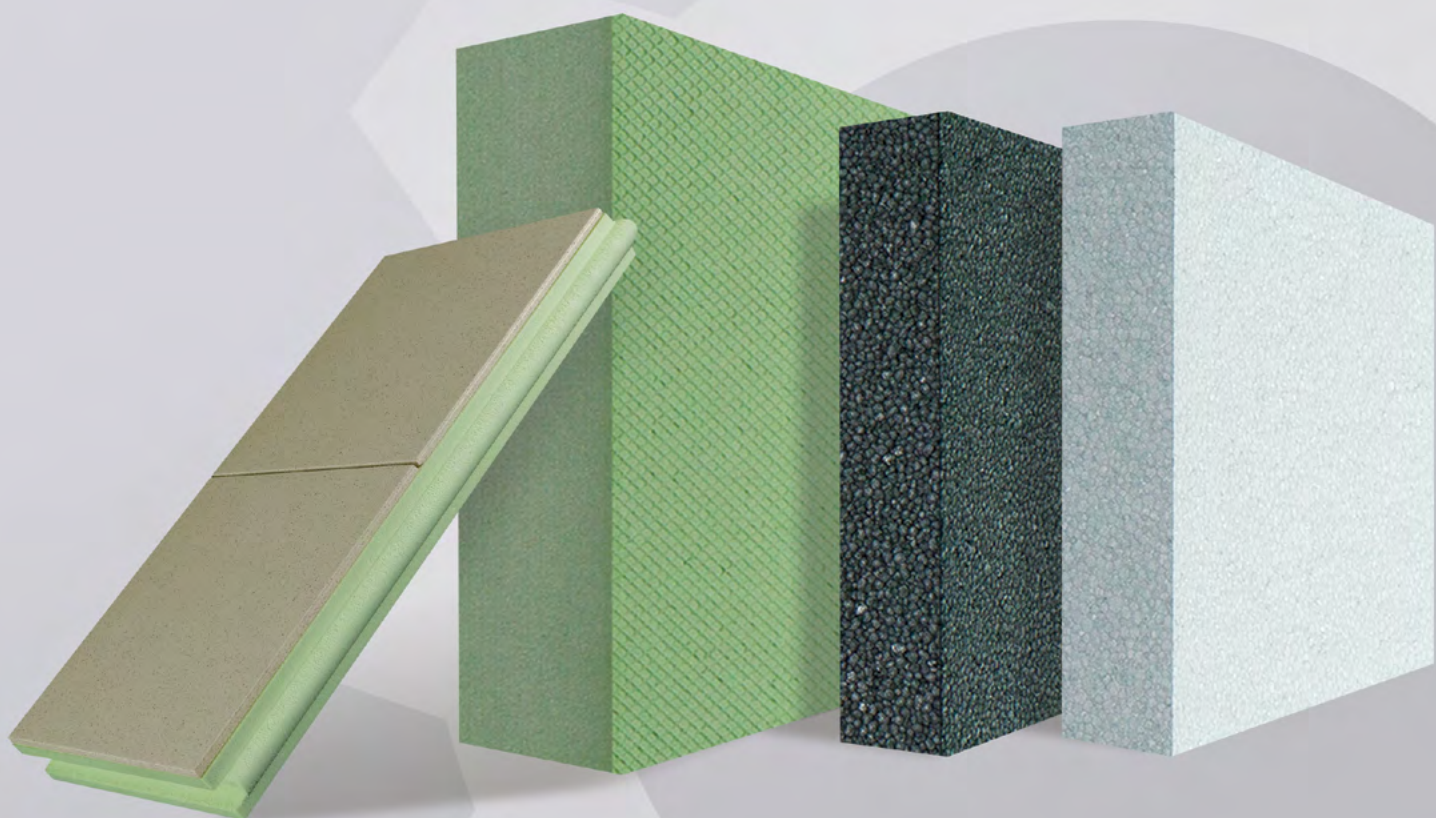




THERMOPLASTIKI
www.thermoplastiki.gr



PRODUCT CATALOGUE **THERMAL INSULATION**

novablok | novablok Terrace | feliblok plus | feliblok
feliblok Fish boxes | External thermal insulation systems

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THERMAL INSULATION

Insulation is not a just an option or a luxury, but an essential need of our time. The implementation of a full thermal insulation system is the cornerstone in achieving energy efficiency and improving the quality of everyday life.

Thanks to its production lines, Thermoplastiki delivers 4 basic and specialised thermal insulation products. Based on the expanded polystyrene (airpop), feliblok and feliblok-plus are materials that are easy to use and a cost-efficient option; based on extruded polystyrene, novablok and novablok Terrace deliver integrated and innovative solutions of high durability and performance for the thermal insulation of the building's and the roof's structure.

Integrated external thermal insulation systems (ETICS)

Thermoplastiki's thermal insulation products are the basis of integrated external thermal insulation systems that we offer in cooperation with the company weber of the group Saint-Gobain.





MANUFACTURED BY THERMOPLASTIKI

The products bear Thermoplastiki's manufacturing guarantee of quality and reliability.



HIGH THERMAL INSULATION

Top thermal insulation performance.



ECO-FRIENDLY

Eco-friendly. Fully recyclable after their use.



GREAT ECONOMY

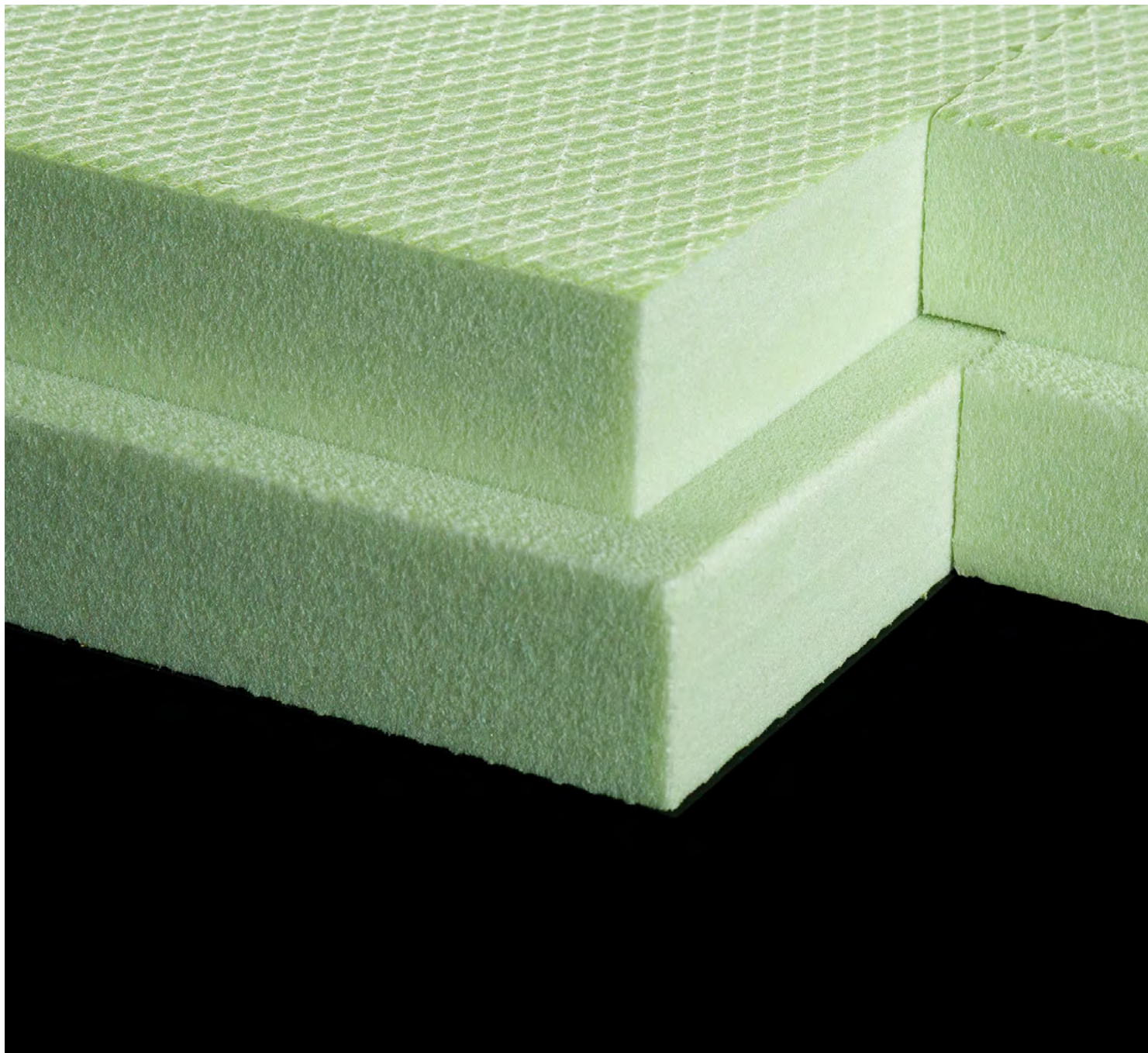
Maximum cost and energy savings



PROPERTY VALUE UPGRADE

Increase in the value of your property due to its upgraded energy class.





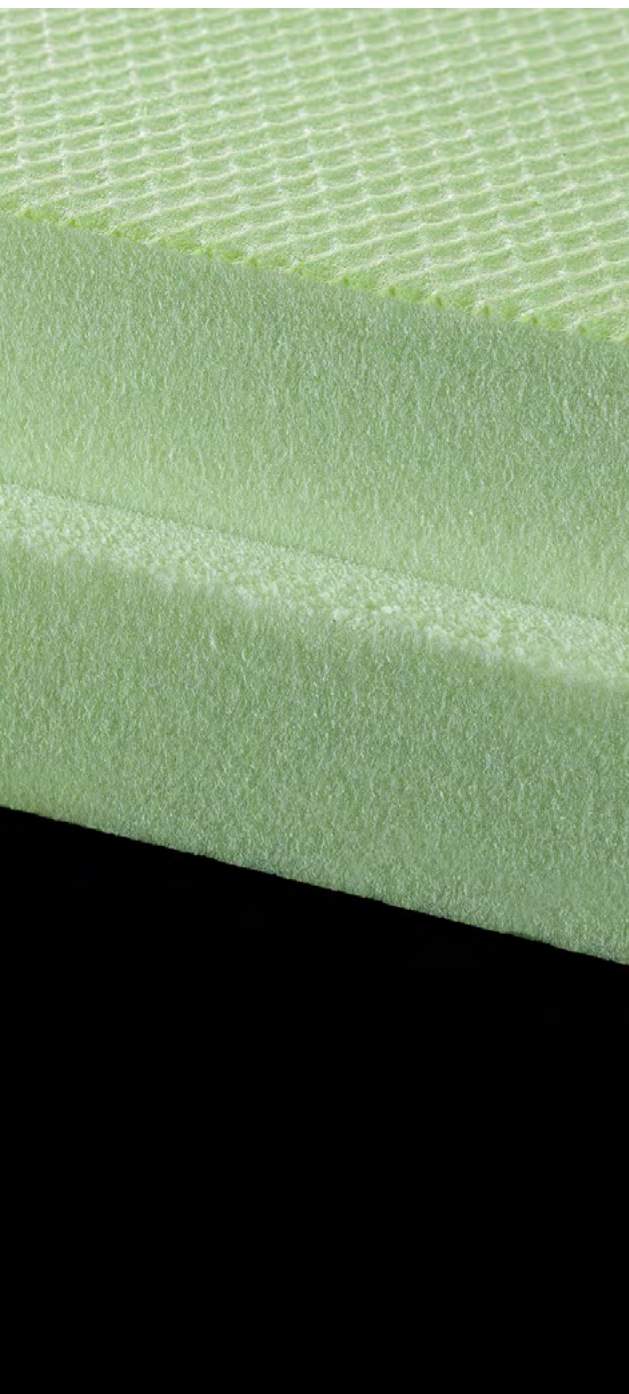
THERMAL INSULATION **novablok^{XPS}**

EXTRUDED POLYSTYRENE

Novablok is the ideal solution to every contemporary problem in thermal insulation. Its practical application and certified thermal performance in both newly constructed and existing buildings render it one of the top insulating materials of our time.

Novablok extruded polystyrene panels contribute to constant reductions in your energy bills, as the small cost of this significant investment is immediately recovered, while enabling long-term cost savings. Their excellent construction ensures the value of the building while their simple and practical installation saves resources during both application and maintenance.





Great resistance to:

Energy and temperature losses
Mold and fungi
Moisture and corrosion
Pressure



Unique properties:

Solid and durable
Proven credibility
No maintenance requirements
No replacement requirements



Easy to apply in:

Foundations and blocks, floors
and roofs, columns and
beams, wooden parts etc.



**Maximum protection from
moisture**

Novablok delivers
incomparable protection
against moisture.

novablock^{XPS}

APPLICATIONS TABLE

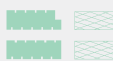

FLOORS	ROOF / RF	WALL / W	FORM / FB	FLOOR / FL	THERMO / T
Load bearing floor tiles	✓			✓	
Residential floors	✓	✓	✓		✓
Load bearing floors	✓	✓	✓	✓	✓
Perimeter floor tiles and basement's walls	✓			✓	
Floors of high mechanical strength				✓	
WALLS	ROOF / RF	WALL / W	FORM / FB	FLOOR / FL	THERMO / T
Double wall	✓	✓			✓
External wall			✓		✓
Formwork			✓		✓
Thermal bridges			✓		✓
Basement external walls insulation			✓		✓
Walls			✓		✓
FLAT ROOMS	ROOF / RF	WALL / W	FORM / FB	FLOOR / FL	THERMO / T
Inverted roof	✓			✓	
Conventional flat rooms	✓	✓		✓	
Walkable roofs	✓			✓	
Roof garden	✓			✓	
Pitched roofs/tiled roofs	✓	✓	✓		✓
OTHER/SPECIALISED APPLICATIONS	ROOF / RF	WALL / W	FORM / FB	FLOOR / FL	THERMO / T
Pilotis spaces/columns	✓		✓		
Warehouses & cooling areas	✓	✓		✓	
External thermal insulation					✓

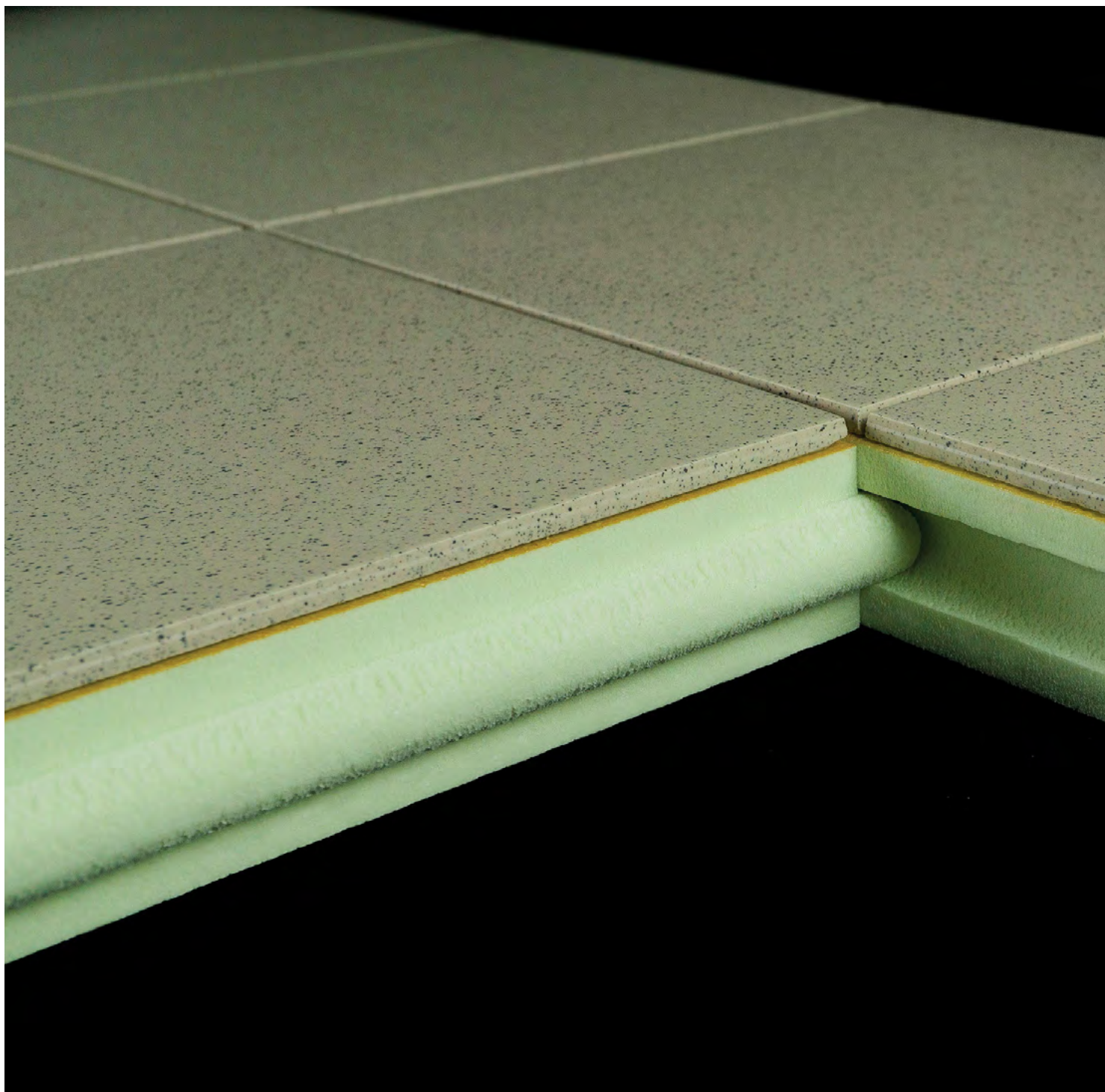


novablok^{XPS}

TECHNICAL SPECIFICATIONS TABLE

EN 13164:2013 System 1

PROPERTIES	EN 13164 STANDARDS	FORM FB	WALL W	ROOF RF	FLOOR F	THERMO T	PANEL P
Sides types							
Surface		NOVANET™ with corrugations	Extrusion	Extrusion	Extrusion	NOVANET™	No skin
Length X Width		2500x600	2500x600	1250x600	2500x600	1250x600	2100x900
Compressive stress σ_{10} (kPa)	EN 826	200-300	200	300	500	200	200
Shear stress τ (kPa)	EN 12090	200	200	210	210	200	200
Shearing measure G (kPa)		1300	1300	1650	1650	1300	1300
Tensile strength σ_{mt} (kPa)	EN 1607	400	400	400	400	400	400
Thermal conductivity λ (W/mK) Thermal resistance R (m²K/W)	EN 12667 or EN 12939	λ	λ	λ	λ	λ	λ
		R	R	R	R	R	R
20mm		-	-	-	-	0.033	0.61
30mm		0.033	0.91	0.033	0.91	0.033	0.91
50mm		0.033	1.52	0.033	1.52	0.033	1.52
70mm		0.035	2.00	0.035	2.00	0.035	2.00
80mm		0.035	2.29	0.035	2.29	0.035	2.29
100mm		0.035	2.86	0.035	2.86	0.035	2.86
Dimensional stability $DS(23.90)\%$	EN 1604	≤0.5%	≤0.5%	≤0.5%	≤0.5%	≤0.5%	≤0.5%
Indicative Density ρ (kg/m³)	EN 1602	32	32	34	34	32	32
Water vapour diffusion resistance μ	EN 12086	80~200	80~200	80~200	80~200	80~200	80~200
Long-term water absorption with partial immersion W_{ip} (Kg/m²)	EN 12087	0.02	0.02	0.02	0.02	0.02	0.02
Non-combustibility class	EN 13501	E	E	E	E	E	E
Thickness tolerances		T1	T1	T1	T1	T1	T1



THERMAL INSULATION **novablok^{XPS} Terrace**

EXTRUDED POLYSTYRENE

Novablok Terrace is the new, innovative proposal by Thermoplastiki, which has come to provide a definitive solution to roof insulation by offering a complete inverted thermal insulation application for

THERMAL INSULATION AND AESTHETICS

Novablok Terrace combines excellent thermal insulation with high aesthetics, enhancing both the energy efficiency and looks of the horizontal roof surface, while adding all the properties for which novablok is known for to the value and functionality of the building.





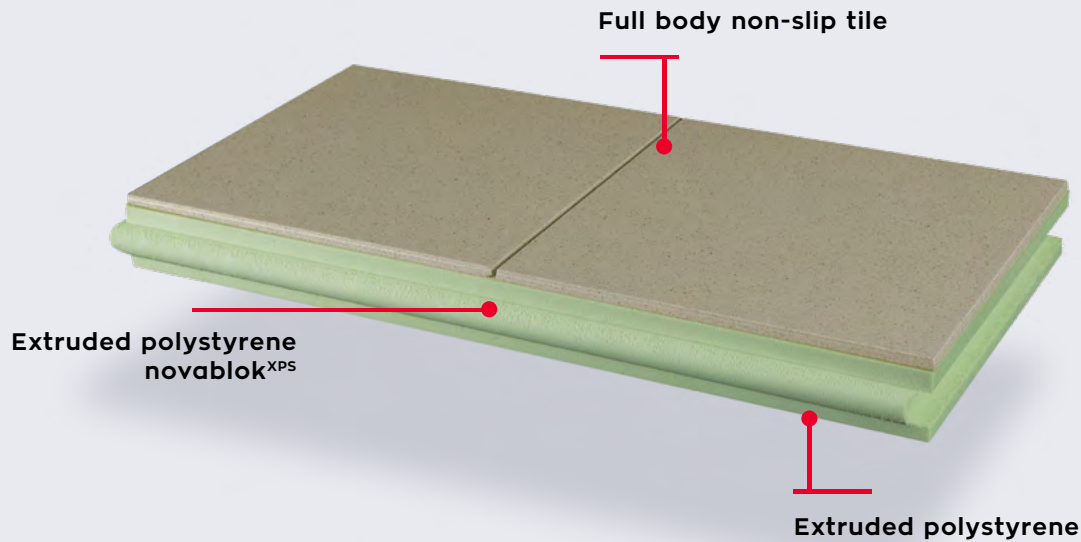
 **novablok**^{xps} *Terrace*
THERMOPLASTIKI



Ideal for all roofs

With only half the weight of the competitive products, the 20 kg/m² of novablok Terrace make it ideal for older buildings.





Excellent thermal insulation

Excellent thermal insulation and aesthetic design combining extruded polystyrene with two non-slip tiles for exterior use.



Roof full walkability

Roof full walkability thanks to the application of novablok Terrace.



Perfect for existing structures

Perfect solution for existing structures because of the low weight per m^2 (20kg), which puts a minimum static pressure on the roof, making it suitable for use even in old buildings, without the need for removal of the existing base structures.



Quick and easy application

The lateral rib configuration ensures easy and fast installation, ensuring maximum stability and excluding the need for thermal bridges.



Ultimate resistance to weather conditions

Ultimate resistance to frost and extreme weather conditions. It protects the waterproofing layer against weather conditions without the need of frequent maintenance.



Excellent stability and resistance

Ultimate resistance with excellent dimensional stability, without any risk of cracking.



High resistance to compression

Solid structure and special construction care for excellent resistance to vertical pressure and weight.



Excellent aesthetic design

Surface from full body tile for the best result of high aesthetic architecture.




Easy clean

Easy to clean, since its surface is not porous.



novablok^{XPS} Terrace

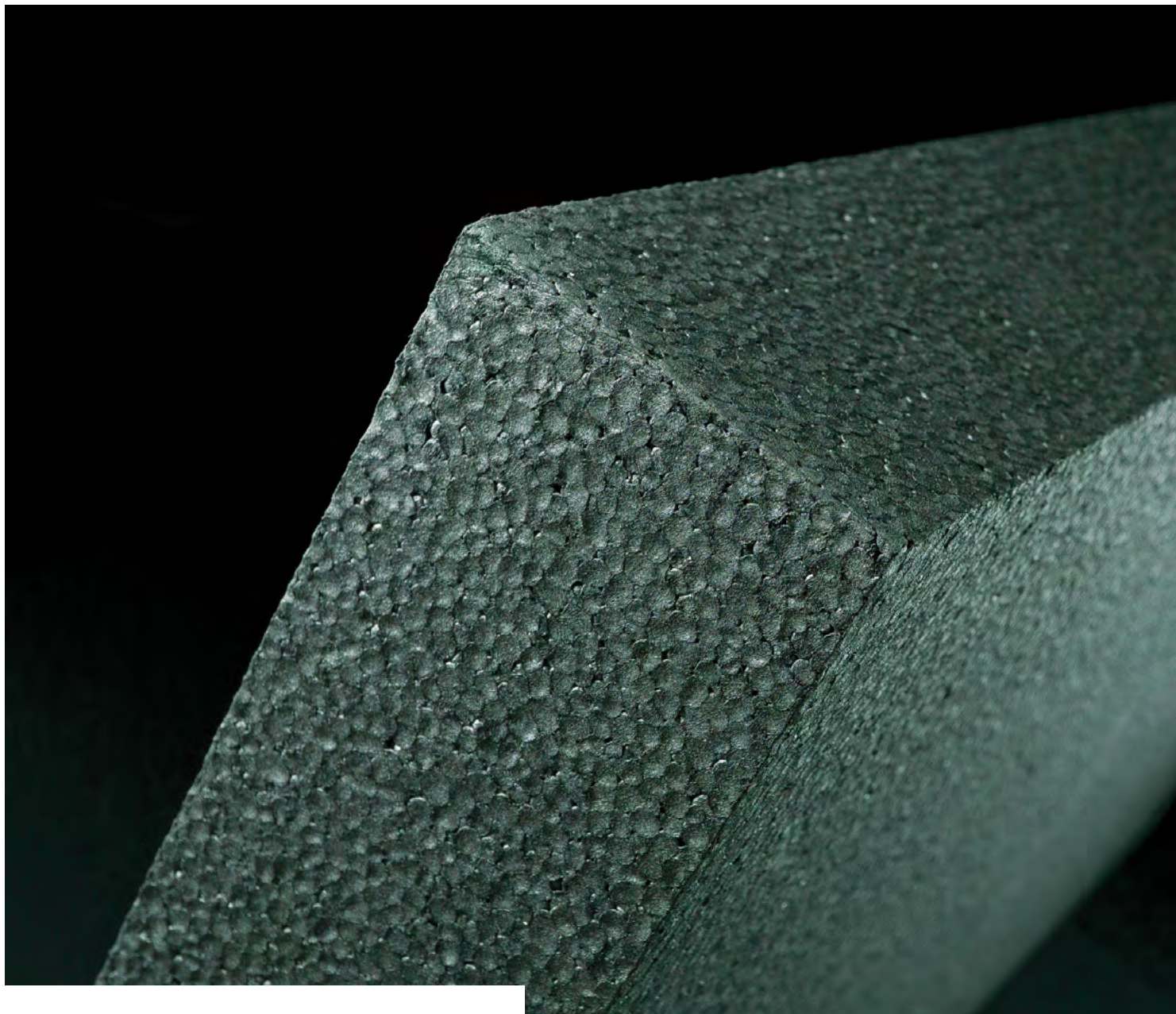
SPECIFICATIONS TABLE

PROPERTIES	EN 13164 STANDARDS	ROOF/RF	
Sides types			
Surface		No skin	
Length X Width		600x300	
Compressive stress σ_{10} (kPa)	EN 826	300	
Shear stress τ (kPa)	EN 12090	210	
Shearing measure G (kPa)		1650	
Tensile strength σ_{mt} (kPa)	EN 1607	400	
Thermal conductivity λ (W/mK) Thermal resistance R (m ² K/W)	EN 12667 or EN 12939	λ R	
50mm		0.033	1.52
70mm		0.035	2.00
Dimensional stability $DS(23.90)\%$	EN 1604	$\leq 0.5\%$	
Indicative Density ρ (kg/m ³)	EN 1602	34	
Water vapour diffusion resistance μ	EN 12086	80~200	
Long-term water absorption with partial immersion W_{lp} (Kg/m ²)	EN 12087	0.02	
Non-combustibility class	EN 13501	E	
Thickness tolerances		T1	

novablok^{XPS} Terrace

TECHNICAL CHARACTERISTICS

Dimensions	60cm x 30cm
Weight	20kg/m ²
Thickness of insulating novablok	50mm & 70mm
Thermal conductivity of insulating novablok	0.033 & 0.035
Tile type	Full body non-slip 30cm x 30cm (2 items)
Tile thickness	8mm



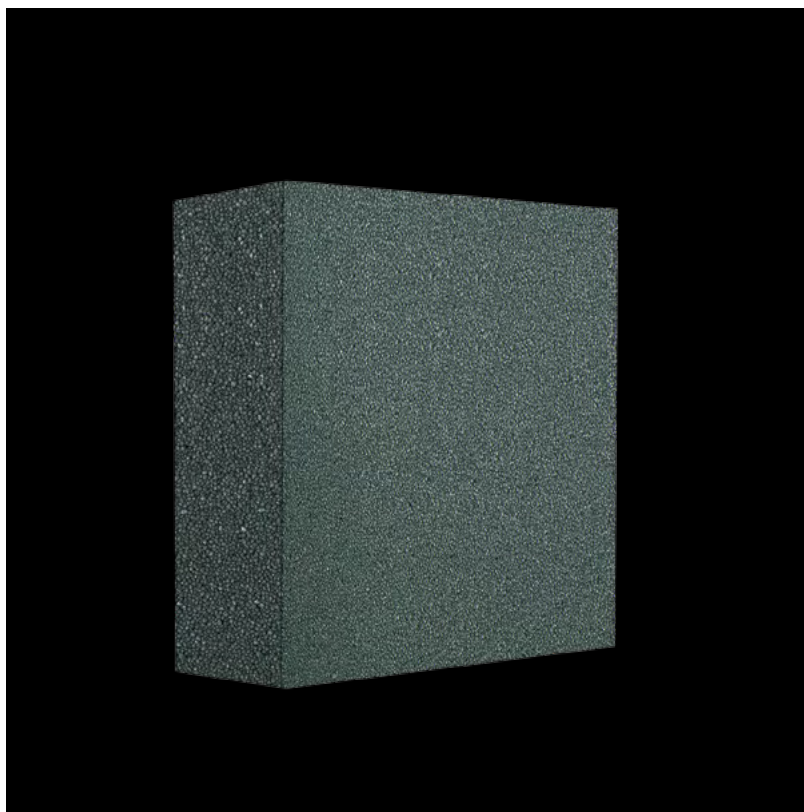
THERMAL INSULATION **feliblok^{EPS} plus**

**EXPANDED POLYSTYRENE
GRAPHITE**

Feliblok-plus manufactured by Thermoplastiki is the latest development in expanded polystyrene insulation panels for buildings external thermal insulation. Its unique character is due to the tiny graphite particles in the expanded polystyrene composition, that act as means of diffusion and absorption of the radiation, thus preventing heat transfer via the radiation.

With a thermal conductivity coefficient $\lambda = 0.030 \text{ W/mK}$ (EPS 100) and 0.031 W/mK (EPS 80), feliblok-plus is a top cost effective product, with excellent thermal insulation performance. Feliblok-plus thermal insulating panels feature better insulation properties by up to 20% compared to feliblok and novablok. Therefore, it takes less insulating panels for the same thermal insulation result. This can be proven a really useful feature for the external insulation of old and existing buildings.





20% better thermal insulation performance compared to feliblok & novablok

Feliblok-plus thermal insulating panels feature better insulation properties by up to 20% compared to feliblok and novablok.



Ideal for external thermal insulation

Feliblok-plus thermal insulation features make it perfect for external thermal insulation applications.

feliblok^{EPS} plus APPLICATIONS TABLE

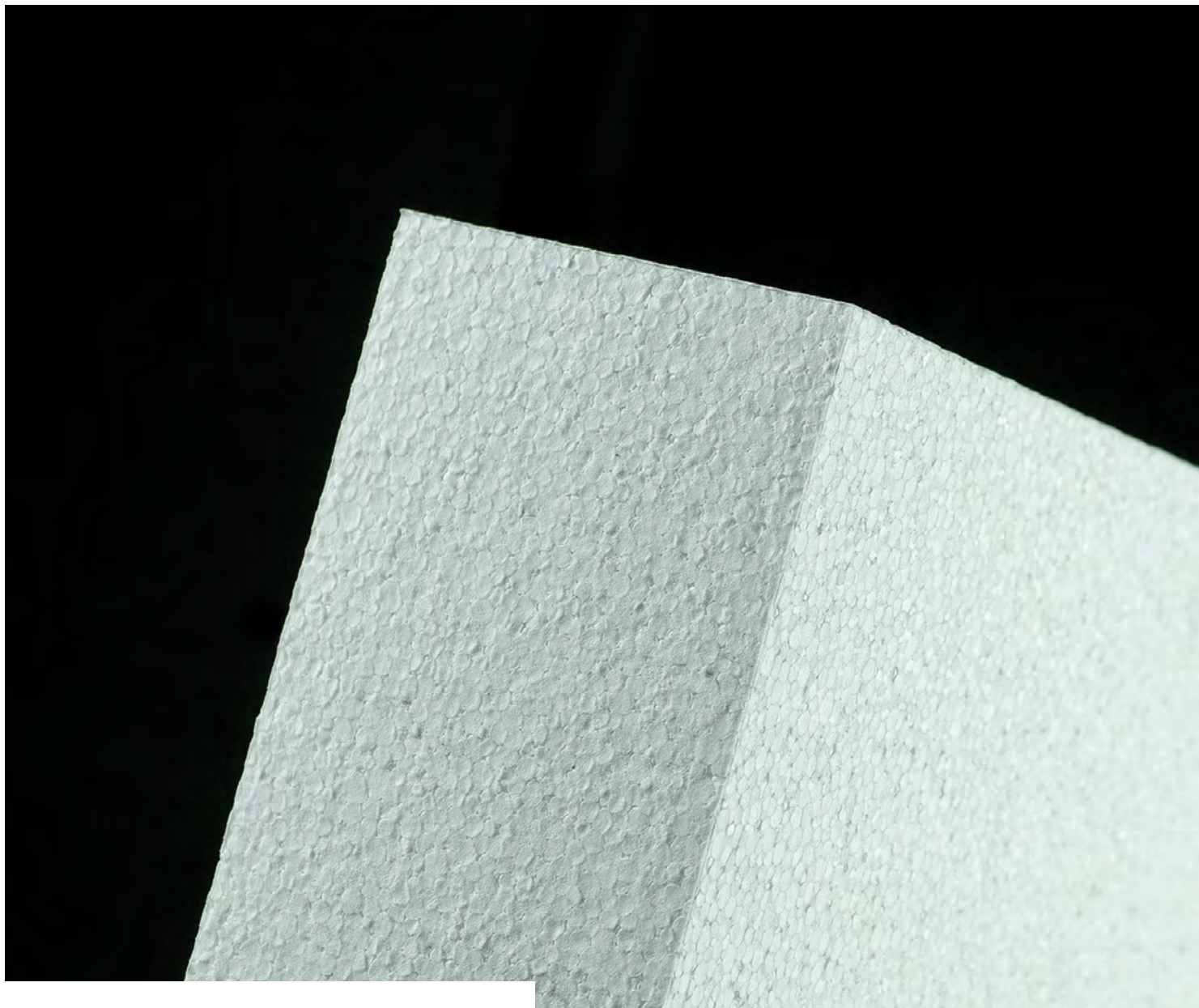
BASEMENTS	EPS 80	EPS 100	EPS 200
Foundations		✓	
Internal walls insulation	✓	✓	
External walls insulation			✓
Earthquake insulation		✓	
FLOORS	EPS 80	EPS 100	EPS 200
Roofs/attics insulation		✓	
Inverted insulations		✓	✓
WALLS	EPS 80	EPS 100	EPS 200
Double wall	✓	✓	
Walls		✓	
External thermal insulation	✓	✓	✓
PITCHED ROOFS	EPS 80	EPS 100	EPS 200
Internal insulation (all)		✓	
Sandwich panels (all)		✓	
External insulation			✓
ROOFS	EPS 80	EPS 100	EPS 200
Roofs linings (PILOTIS SPACES)		✓	
Concrete panels			✓
CIVIL ENGINEER APPLICATIONS	EPS 80	EPS 100	EPS 200
All in general	✓	✓	✓



feliblok^{EPS} plus
SPECIFICATIONS TABLE

EN 13163:2012 System 1

feliblok ^{EPS} plus	STANDARDS	PRODUCT TYPES					
PROPERTIES	EN 13163	EPS-80		EPS-100		EPS-200	
Compressive stress σ_{10} (kPa)	EN 826	80		100		200	
Bending resistance σ_b (kPa)	EN 12089	125		150		250	
Shear stress τ (kPa)	EN 12090	60		75		125	
Tensile strength σ_{mt} (kPa)	EN 1607	200		200		200	
Thermal conductivity λ (W/mK) Thermal resistance R (m ² K/W)	EN 12667 or EN 12939	λ	R	λ	R	λ	R
20mm		0.031	0.65	0.030	0.66	0.030	0.66
30mm		0.031	0.97	0.030	1.00	0.030	1.00
40mm		0.031	1.29	0.030	1.33	0.030	1.33
50mm		0.031	1.61	0.030	1.67	0.030	1.67
60mm		0.031	1.93	0.030	2.00	0.030	2.00
70mm		0.031	2.25	0.030	2.33	0.030	2.33
80mm		0.031	2.58	0.030	2.66	0.030	2.66
90mm		0.031	2.90	0.030	3.00	0.030	3.00
100mm		0.031	3.22	0.030	3.33	0.030	3.33
120mm		0.031	3.87	0.030	4.00	0.030	4.00
Dimensional stability DS(N)%	EN 16036	≤0.5%		≤0.5%		≤0.5%	
Density ρ (kg/m ³)	EN 1602	≥16		≥19		≥30	
Water vapour diffusion resistance μ	EN 12086	20~40		30~70		60~100	
Reaction to fire	EN 13501	E		E		E	



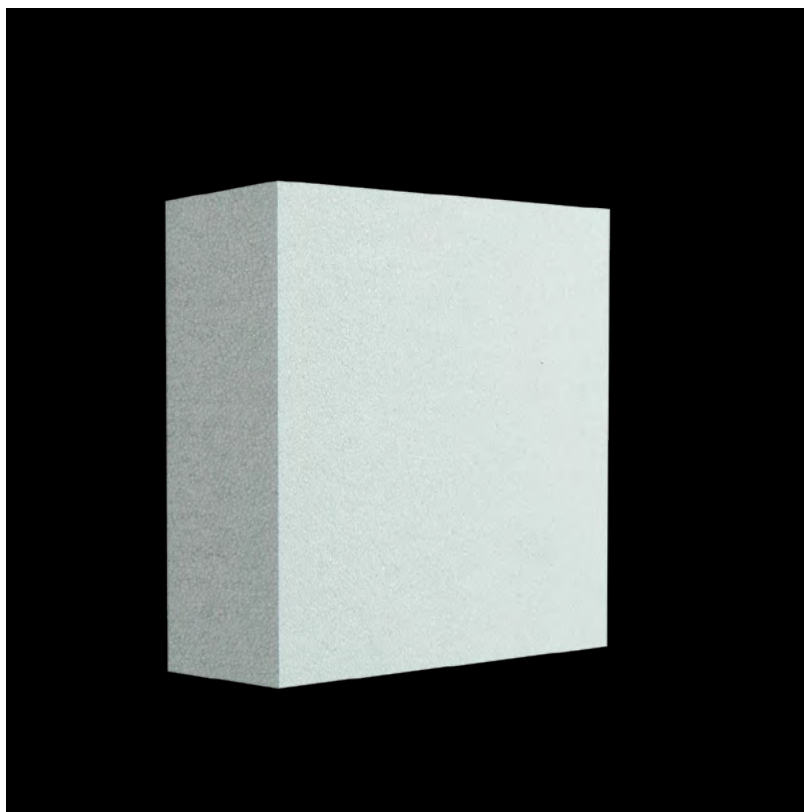
THERMAL INSULATION **feliblok**^{EPS}

**EXPANDED POLYSTYRENE
AIRPOP**

Feliblok is the ultimate thermal insulation application and the most cost-effective. The usability of the product, in combination with the financial investment and immediate amortization thereof, render feliblok one of the most practical implements for conserving energy and ensuring a good quality of life. Its excellent insulating properties contribute to the complete thermal insulation of any newly constructed or existing building.

Feliblok is a rigid foam material based on polystyrene. The pearl-sized white grains density in air is 98%, which means they are light and have excellent thermal-insulation properties in the long-term, thanks to the stability of the material and the very low water absorption. The eco-friendly nature of the product, in addition to its significant contribution to the reduction of the energy footprint, is further supported by the fact that it can be completely recycled.



**Great resistance to:**

Energy and temperature losses
Fungi
Moisture and corrosion

**Unique properties:**

Proven credibility
Long application experience
No maintenance requirements
Easy to use and safe
Eco-friendly
Applicable to any surface

**Easy to apply in:**

Walls and basements
Columns and beams
Ceilings and roofs
Underfloor heating
Panels with joists
Building facade
Double wall

**Ideal for external thermal insulation**

Feliblok's thermal insulation properties make it perfect for external thermal insulation.

feliblok^{EPS} APPLICATIONS TABLE

BASEMENTS	EPS 50	EPS 80	EPS 100	EPS 150	EPS 200
Foundations	✓		✓		
Internal walls insulation		✓	✓		
External walls insulation				✓	✓
Earthquake insulation			✓		
FLOORS	EPS 50	EPS 80	EPS 100	EPS 150	EPS 200
Roofs/attics insulation			✓	✓	
Inverted insulations			✓	✓	✓
WALLS	EPS 50	EPS 80	EPS 100	EPS 150	EPS 200
Double wall		✓	✓	✓	
Walls			✓	✓	
External thermal insulation		✓	✓		✓
PITCHED ROOFS	EPS 50	EPS 80	EPS 100	EPS 150	EPS 200
Internal insulation			✓	✓	
Sandwich panels			✓	✓	
External insulation				✓	✓
ROOFS	EPS 50	EPS 80	EPS 100	EPS 150	EPS 200
Ceilings linings (Pilotis spaces)			✓	✓	
Concrete panels				✓	✓
CIVIL ENGINEER APPLICATIONS	EPS 50	EPS 80	EPS 100	EPS 150	EPS 200
All in general	✓	✓	✓	✓	✓



feliblok^{EPS}

SPECIFICATIONS TABLE

EN 13163:2012 System 1

feliblok ^{EPS}	STANDARDS	PRODUCT TYPES									
PROPERTIES	EN 13163	EPS-50		EPS-80		EPS-100		EPS-150		EPS-200	
Compressive stress σ_{10} (kPa)	EN 826	50		80		100		150		200	
Bending resistance σ_b (kPa)	EN 12089	75		125		150		200		250	
Shear stress τ (kPa)	EN 12090	35		60		75		100		125	
Thermal conductivity σ_{mt} (kPa)	EN 1607	140		200		200		200		200	
Thermal conductivity λ (W/mK) Thermal resistance R (m ² K/W)	EN 12667 or EN 12939	λ		λ		λ		λ		λ	
			R		R		R		R		R
20mm		0.040	0.50	0.036	0.55	0.035	0.57	0.034	0.59	0.033	0.60
30mm		0.040	0.75	0.036	0.83	0.035	0.86	0.034	0.88	0.033	0.90
40mm		0.040	1.00	0.036	1.11	0.035	1.14	0.034	1.18	0.033	1.21
50mm		0.040	1.25	0.036	1.38	0.035	1.42	0.034	1.47	0.033	1.51
60mm		0.040	1.50	0.036	1.66	0.035	1.71	0.034	1.76	0.033	1.81
70mm		0.040	1.75	0.036	1.94	0.035	2.00	0.034	2.06	0.033	2.12
80mm		0.040	2.00	0.036	2.22	0.035	2.28	0.034	2.35	0.033	2.42
90mm		0.040	2.25	0.036	2.50	0.035	2.57	0.034	2.65	0.033	2.73
100mm		0.040	2.50	0.036	2.77	0.035	2.85	0.034	2.94	0.033	3.03
120mm		0.040	3.00	0.036	3.33	0.035	3.43	0.034	3.53	0.033	3.64
Dimensional stability DS(N)%	EN 16036	≤0.5%		≤0.5%		≤0.5%		≤0.5%		≤0.5%	
Density ρ (kg/m ³)	EN 1602	≥12		≥16		≥19		≥25		≥30	
Water vapour diffusion resistance μ	EN 12086	20~40		20~40		30~70		40~70		60~100	
Reaction to fire	EN 13501	E		E		E		E		E	



feliblok^{EPS} **Fish boxes**

EXPANDED POLYSTYRENE

Thermoplastiki has also placed its thermal insulation applications at the service of packaging in this field, a special place is held by boxes for preserving and transporting fisheries. Feliblok Expanded Polystyrene application - Airpop) ensures temperature stability, preventing the entry of heat from the external environment and maintaining the ideal conditions for safe transport of the product. After it has been used, the product can be fully recycled.

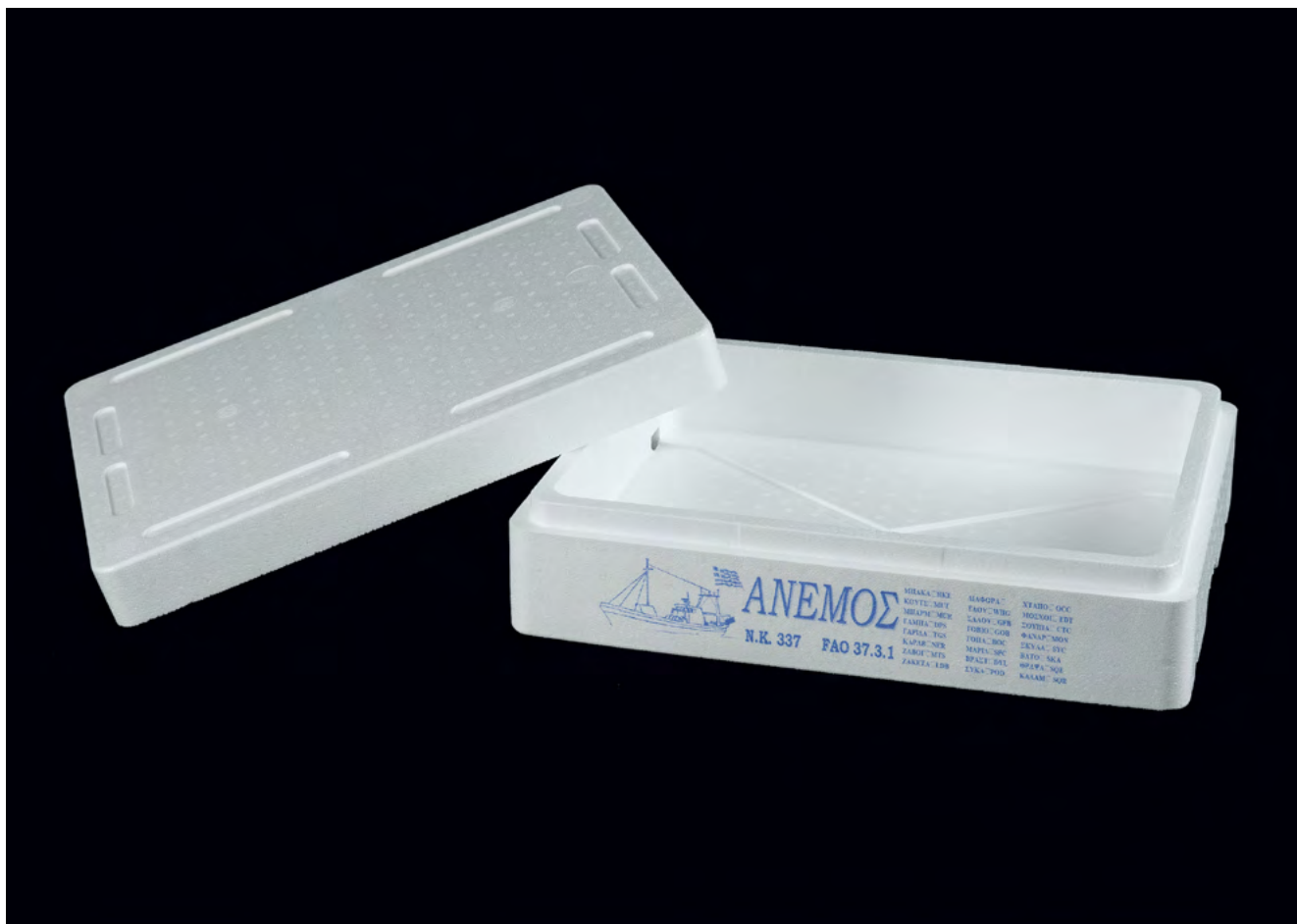




Suitable for food packaging

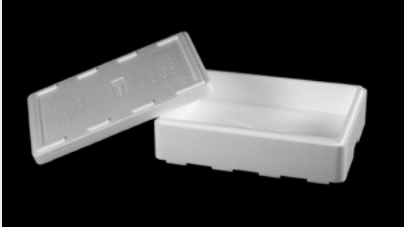
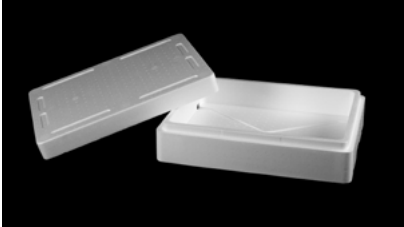
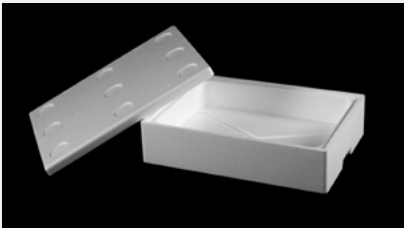
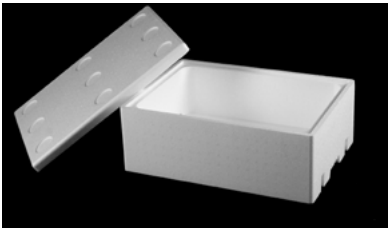

Feliblok fish boxes are ideal for preserving and transporting fisheries.





feliblok^{EPS} Fish boxes

SPECIFICATIONS TABLE

	Dimensions ext. (cm)	Dimensions int. (cm)	Net Depth (cm)	Capacity (kg)
 <p>BOX EPS No 1</p>	40.5x30.5	36.5x26.4	7	3
 <p>BOX EPS No 2</p>	50x38	44.3x33	8	6
 <p>BOX EPS No 3</p>	50x36	45x31	8	6
 <p>BOX EPS No 4</p>	50x36	45x31	14	10
 <p>BOX EPS No 5</p>	50x35.5	45x30.5	7	6



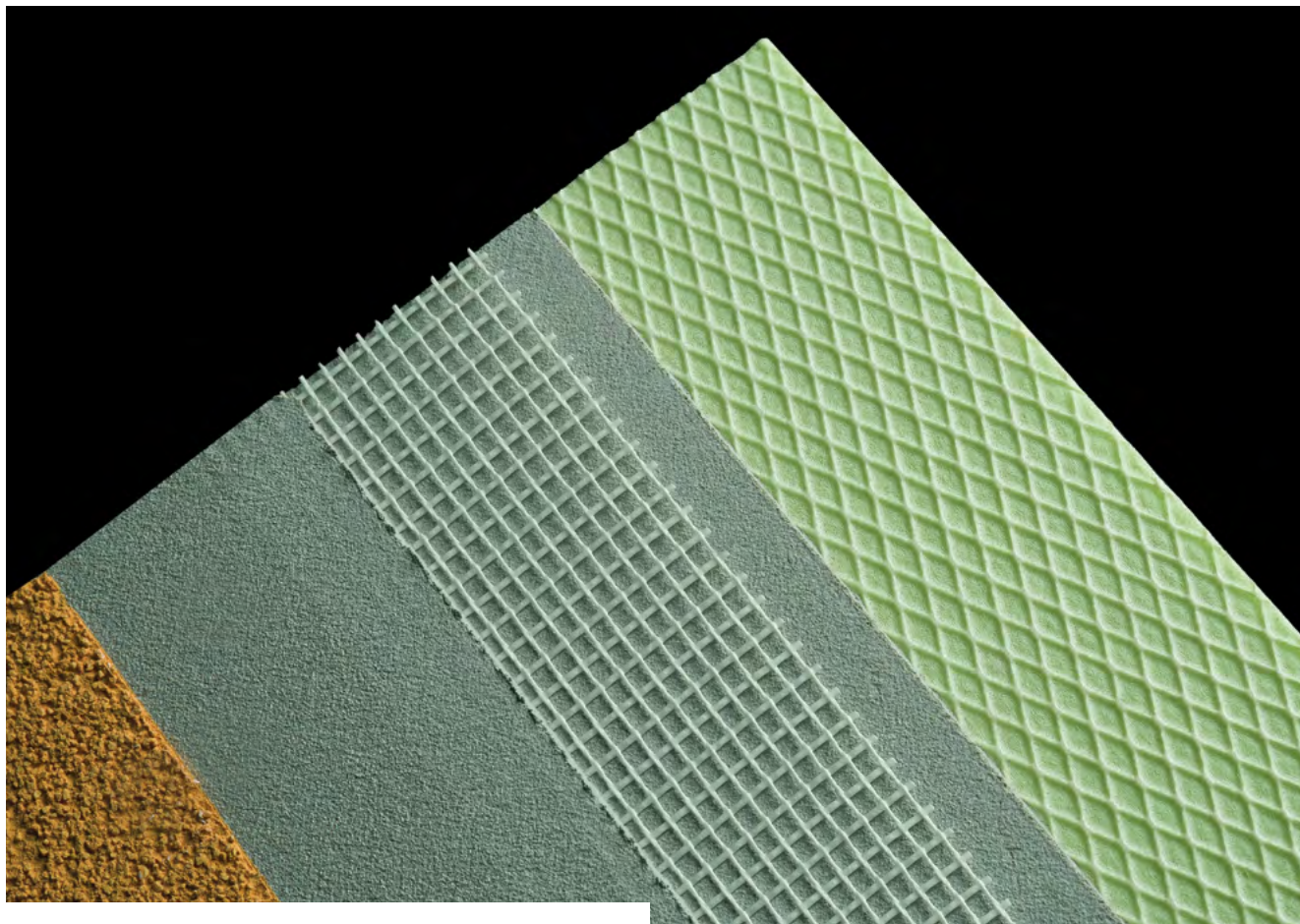
EXTERNAL THERMAL INSULATION SYSTEMS



weber.therm max

weber.therm family white

weber.therm family black

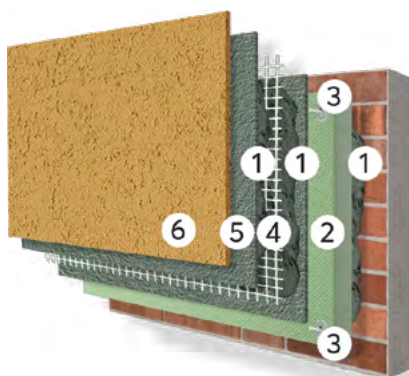


SYSTEM WEBER.THERM MAX

EXTERNAL THERMAL INSULATION SYSTEM

Weber.therm max external thermal insulation system, which uses the thermal insulation product novablok produced by Thermoplastiki (graphite eps), achieves complete thermal insulation of the building, combined with absolute water tightness and increased structural pressure resistance.

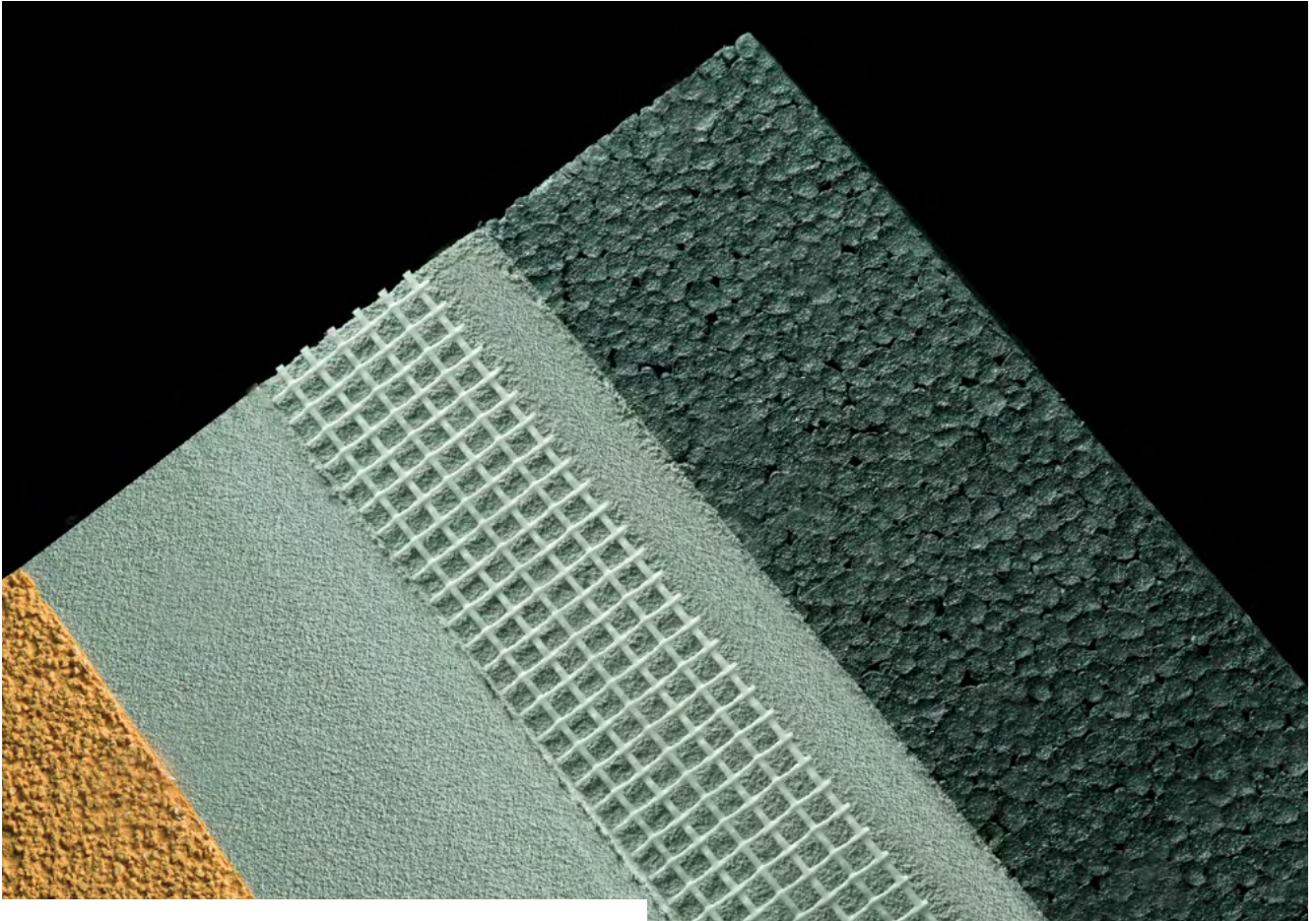
Weber.therm max, a complete external thermal insulation system.



1. Adhesive mortar (glue)
weber.therm AP60 system
2. Insulating tiles
novablok thermo
3. Insulating panels anchors
PN 8
4. Reinforcement grid
weber.therm RE 160
- 5+6. Primer + Colour coating
weber prim RA 13 + Acrylcover
weber prim RC 14 + Siloxcover
weber prim Mineral + Mineral cover

weber.therm max

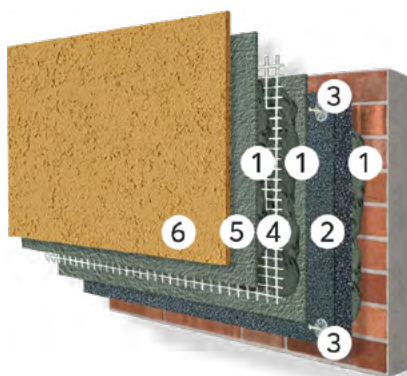
 **novablok**^{XPS}
THERMOPLASTIKI



SYSTEM **WEBER.THERM FAMILY BLACK**

EXTERNAL THERMAL INSULATION SYSTEM

The weber.therm family black insulation system, which uses the thermal insulation product feliblok-plus produced by Thermoplastiki from graphite expanded polystyrene (eps) ensures complete thermal insulation, while, at the same time, it decorates the faces of the old and new buildings. High thermal performance indexes are coupled with their eco-identity and the flexibility for the installation, thus creating a completed final result, ready to be painted according to your wishes. Top value-for-money proposal.



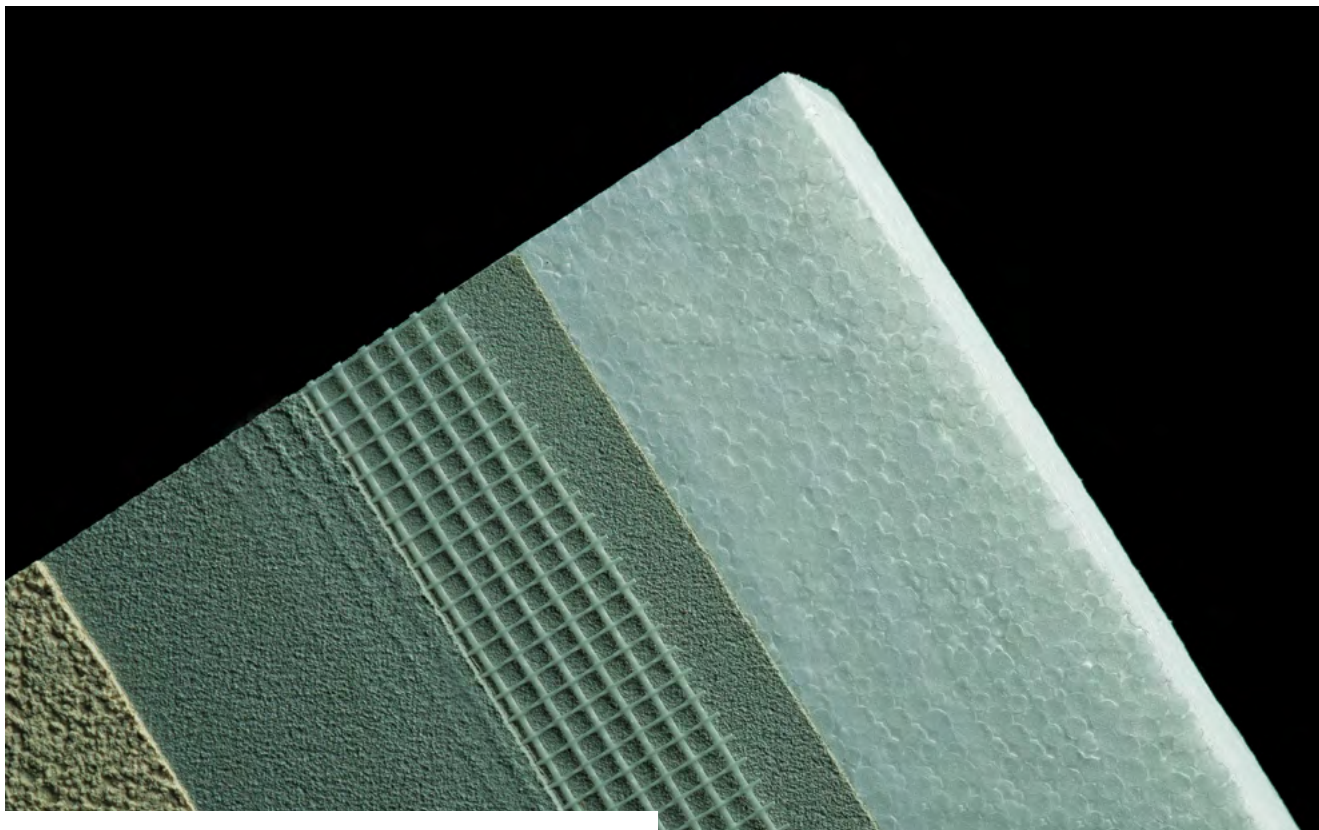
1. Adhesive mortar (glue)
weber.therm AP60 system
2. Insulating tiles
feliblok-plus eps 80, 100, 200
3. Insulating panels anchors
PN 8
4. Reinforcement grid
weber.therm RE 160
- 5+6. Primer + Colour coating
weber prim RA 13 + Acrylcover
weber prim RC 14 + Siloxcover
weber prim Mineral + Mineral cover

weber.therm family black

feliblok^{EPS} plus
 THERMOPLASTIKI



www.thermoplastiki.gr

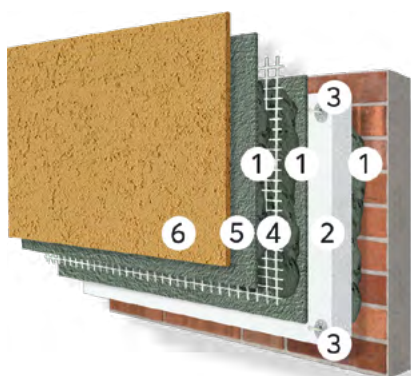


SYSTEM WEBER.THERM FAMILY WHITE

EXTERNAL THERMAL INSULATION SYSTEM

The weber.therm family white insulation system, which uses the thermal insulation product feliblok-plus produced by Thermoplastiki from graphite expanded polystyrene (eps) ensures complete thermal insulation, while, at the same time, it decorates the faces of the old and new buildings.

High thermal performance indexes are coupled with their eco-identity and the flexibility for the installation, thus creating a completed final result, ready to be painted according to your wishes. Top value-for-money proposal.



1. Adhesive mortar (glue)
weber.therm AP60 system
2. Insulating tiles
feliblok eps 80, 100, 200
3. Insulating panels anchors
PN 8
4. Reinforcement grid
weber.therm RE 160
5. Primer
- 5+6. Primer + Colour coating
weber prim RA 13 + Acrylcover
weber prim RC 14 + Siloxcover
weber prim Mineral + Mineral cover




weber.therm family white

feliblok EPS
THERMOPLASTIKI

EOTA
European Organisation
for Technical Assessment



TABLE OF CHARACTERISTICS
WEBER.THERM SYSTEMS

	<div>weber.therm max</div>	<div>weber.therm family black</div>	<div>weber.therm family white</div>
<div> THERMAL INSULATION</div>			
<div> MECHANICAL STRENGTH</div>			
<div> WATER PERMEABILITY *</div>			
<div> TRANSPIRATION</div>			
<div> COST *</div>			

* The higher the value, the better the waterproofing performance of the system.

* The higher the value, the lower the purchase cost.



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