



# Our identity

Inspired by the beauty and the natural qualities of terracotta for more than 150 years, TERREAL has always progressed and faced the challenges of its industry to become a key player in building materials.

Today, TERREAL is an innovative and responsible manufacturing company with over 2,700 employees across 10 countries.

Creating global solutions for building envelopes, TERREAL operates four main businesses: roofing, façade, structural and decorative. Our mission: to continually improve regional development and foster sustainable, aesthetic and functional architectural projects that respect both mankind and the environment.

We work with clay and let it inspire us to change daily life into something unique.

Terreal, building beauty

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**GLOBAL** SOLUTIONS

# TERREAL Façade, A unique material for exceptional architectural designs.

Drawing on its 35-year expertise in façade products, Terreal has mastered the exceptional properties of terracotta and adapted them to the requirements of sustainable construction. Cooling in summer, regulating temperatures in winter, the solutions in our product range fit perfectly into external insulation systems and are suitable for new constructions and renovation projects.

As a true showcase of the building, the façade also represents a key element in its energy efficiency. With either ventilated or direct wall cladding, sunscreens or wall facing, Terreal Façade offers an extensive range of innovative solutions used to cover or insulate all types of buildings.



Born more than 20 years, through the meeting of terracotta experts and great architecture names such as Renzo Piano and Richard Rogers, TERREAL terracotta facade continues to reinvent itself to open new fields in architectural creation.



### Timeless modernity of an age-old material

Since ancient times, clay has been used for decoration, protection and appeal. Today, it takes new shapes that add style to your architectural designs.

Terracotta is a material with cutting-edge production techniques and industry leading performance in all requirements: manufacturing consistency, numerous colour variations, product customization, ease of installation, versatility, insulation performance and environmental responsiveness.

While other materials may challenge terracotta in some of these fields, few acheive all of the following qualities:

- Durable
- Perennial
- Modern
- Authentic
- Environmentally Friendly
- •100% Natural
- Fire Resistant
- Impact Resistant
- Recyclable
- Low Thermal Conductivity
- Creative
- Architectural
- Warm
- Light
- Living



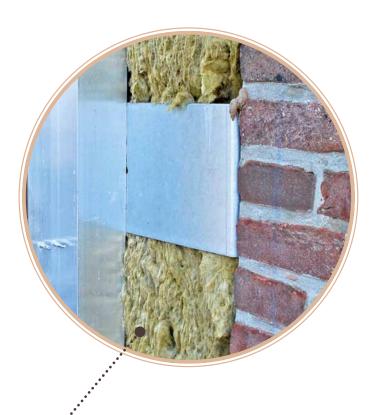


# External thermal insulation

for effective and long-lasting facades

Faced with today's environmental challenges, insulation is crucial to both new constructions and renovation projects.

As the World's specialist in terracotta based external wall insulation, Terreal provides expertise and high-performance technical solutions to meet the requirements of thermal regulations.



### EXTERNAL WALL INSULATION: A MUST FOR ENERGY EFFICIENCY

- Improves comfort during summer and winter
- Lowers heat loss of the building envelope
- Helps to significantly reduce **energy consumption**
- Increased habitable space





Architect: Hornoy Architectes
Owner: SA Villogia
Installer: Luc Daniel Couverture
Product: Piterak® Pearl Grey and Ebony



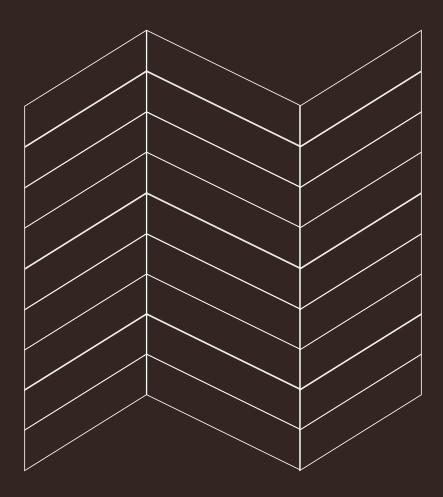
# Low-cost housing renovation,

the terracotta signature

- Moderate long term **global costs**
- Durable and **maintenance free** for low operating costs
- Improved thermal performance
- Protection: Resistance to UV, impact, and wind
- Fast installation on occupied sites
- Unique aesthetics for architectural enhancement



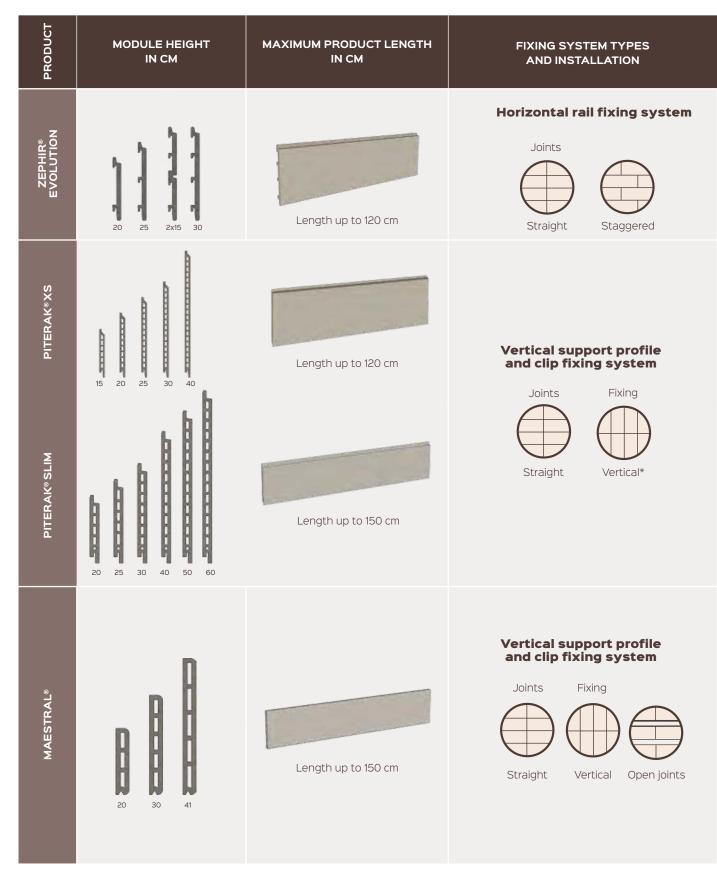




# THE WALL CLADDING PRODUCT RANGE

Modern, authentic and environmentally friendly, the Terreal wall cladding product range continually invigorates is application techniques and aesthetics. It offers highly effective solutions that meet the latest thermal, seismic and environmental regulations. It is resistant to impact, wind and frost, and is certified by technical assessments issued by the CSTB organization and other engineering organizations around the World. Durable, maintenance-free, and economical, our products are made from clay, a natural raw material, and benefit from the expertise of a major corporation to constantly progress.

### **WALL CLADDING PRODUCT GUIDE**



<sup>\*</sup> With the V-clip® fixing system: see p.52 All module heights and lengths are available in imperial dimensional products

#### **FIXING ACCESSORIES**



ZVNP01 Rail Zéphir® Evolution



ZVNP02 ½ Rail Zéphir® Evolution



Zephir® Evolution EPDM gasket for vertical profile\*\*



ZÉPHIR® EVOLUTION

MAESTRAL®

.

PITERAK® XS PITERAK® SLIM

COLOUR CHART

Stone colour (03.) Champagne

Dune Pink

06. Sand 04. Salmon

(11.) Sahara beige

Dark grey 09. Coffee Chocolate brown (16.) Ebony 10. Chalk white Clay grey

12. Light grey

15. Slate grey

T profile Zéphir® Evolution\*\*



PITP01 Piterak® Profile ridged main course support



Profile main course support angle support



Profile ridged



Profile angle support



Option available

Y profile



PITP02 Piterak® PITP03 Piterak® PITP04 Piterak® PITP05 Piterak® PITP04 Piterak® Profile direct mounting



PSLA01 Standard clip Piterak® Slim



PXSA1 Standard clip Piterak® XS



PITA03 upper clip



PITA04 Clip for Piterak® Slim movement joint movement joint



PITA05 Clip for



PSLA02 Angle slim clip



Profile undirect



MAEA01 Maestral® left Standard clip



MAEP02 ½ Profile direct mounting



MAEA02 MAEA03 Maestral® Right Maestral® left Maestral® Right Standard clip upper clip



MAEP03 Maestral® profile



MAEA04 upper clip



MAEP04 ½ Maestral® profile



MAEA05 Maestral® bottom clip



MAEA06 Maestral® angle clip

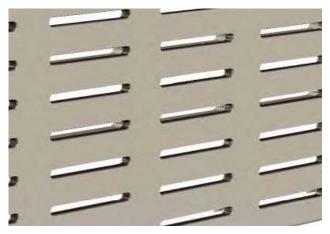
<sup>\*\*</sup> Option for vertical profile/rail with EPDM gasket available. Please enquire via your local Terreal Contact.

### STANDARD FINISHES



**SANDED** 

Zéphir® Evolution, Maestral®, Autan® Droplet, Zonda® XL, Autan®, Harmattan®



577

**PERFORATED** 

Zéphir® Evolution



**PATINATED** 

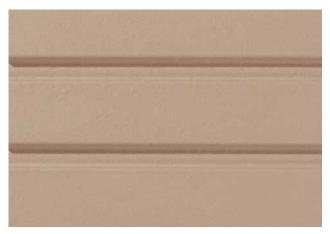
Piterak® Slim, Piterak® XS

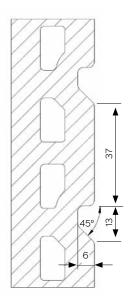


# <u>a</u>

#### RIDGED 9.2

Zéphir® Evolution, Piterak® Slim, Piterak® XS Ridged dimensions : H9 x P2 mm





**GROOVED 13.6** 

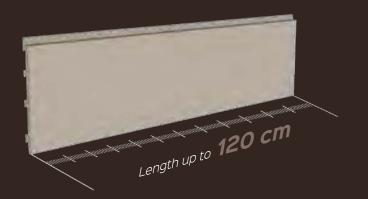
Piterak® Slim

Grooved dimensions: H13 x P6 mm



Zephir® Evolution is a cost-effective wall cladding solution placed on horizontal rails, with a vertical rail with EPDM gasket option also available. Its simple and fast fixing system combined with its light weight and its flexibility make it particularly well adapted for renovation works. Its modern and linear look is emphazised by its length, which can reach 120cm.

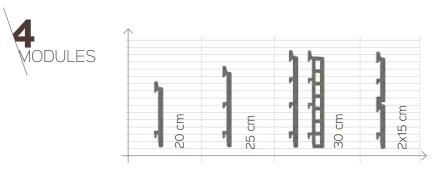




### **ADVANTAGES**

- Economical and light: 35kg/m²
- Fast and simple installation on rails
- Easy cuts made on-site
- Staggered or straight joints
- Modules as low as 15cm with the Twin version
- Vertical framework centre spacing up to 120cm
- High impact performance: for installation at ground level





All module heights and lengths are available in imperial dimensional products



#### STANDARD SIZES AND PERFORMANCES

PRODUCT		MODULE HxLxTh mm	DIMENSIONS HxLxTh mm	WEIGHT PER M²	IMPACT RESISTANCE*	WIND RESISTANCE  SPACE BETWEEN  VERTICAL SUPPORTS  120 cm 60 cm	
ZEPHIR® EVOLUTION	20	200 x 600 to 1200	210 x 595 to 1195 x 14	35	Q3	V2 (1200 Pa)	V3 (1785 Pa)
	25	250 x 600 to 1200	260 x 595 to 1195 x 14	35	Q4	V2 (1200 Pa)	V3 (1785 Pa)
	30	300 x 600 to 1200	310 x 595 to 1195 x 14	35	Q4	V1 (1036 Pa)	V3 (2183 Pa)

H = Height ; L = Length ; Th. = Thickness

#### **INSTALLATION PROPERTIES**

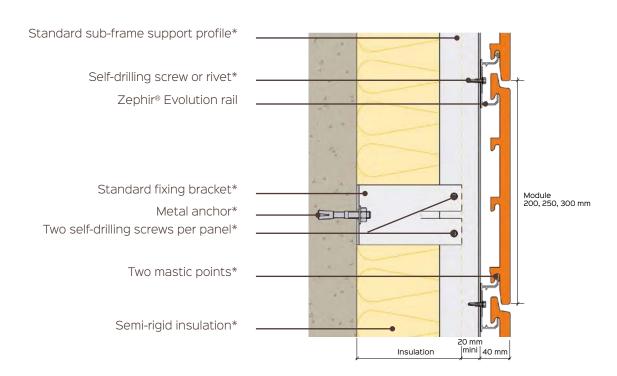
- Under Technical Assessment
- Substrate type: concrete wall, coated masonry and framed walls.
- Primary framework: metal or timber.
- Panels supported by rails, installed sequentially from bottom to top.
- Vertical profile with EPDM gasket option also available
- Straights or staggered joints fixing
- Product secured at the bottom using two mastic points (type: Sikaflex Pro 11FC).
- Very easy replacement of one broken panel.
- Air gap for ventilation: 20mm or more.
- 45° mitre cut available from factory.
- 5mm vertical joints.
- Seismic performance: Approved in zone 4, for buildings type IV, with insulation up to 200mm.
- Frost resistance: Complies with standard NF EN 539.
- Worldwide compliance and testing certificates have been achieved

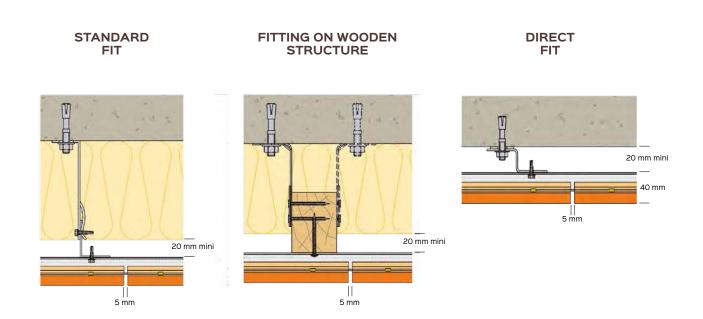


<sup>\*</sup> Maximum resistance reached with a reinforced installation: see technical approval.

All Module Heights and Lengths are available in Imperial Dimensional Products

# STANDARD INSTALLATION DETAILS

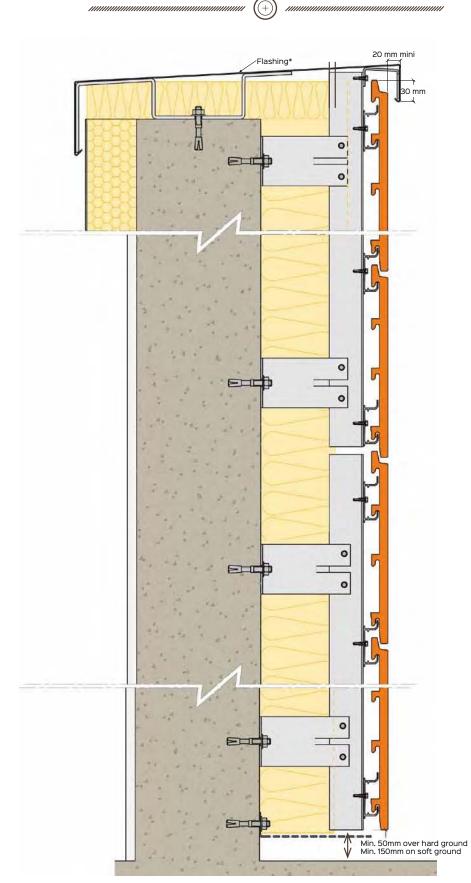




<sup>\*</sup> Not furnished by Terreal

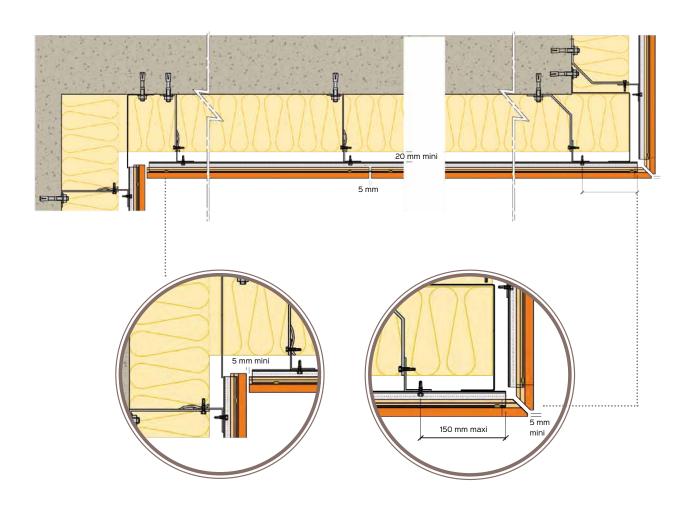


# DETAIL : WALL BASE AND PARAPET



\*Not furnished by Terreal

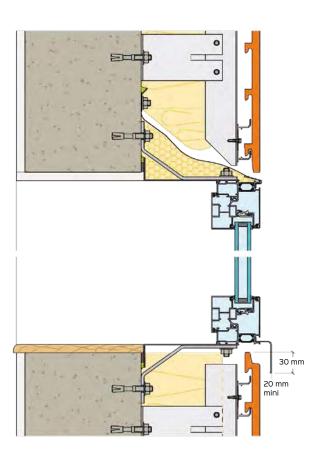


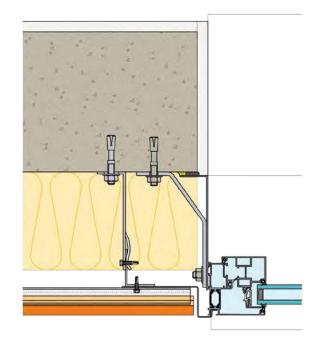




# DETAIL: WINDOW FRAME FLUSH WITH OUTSIDE WALL



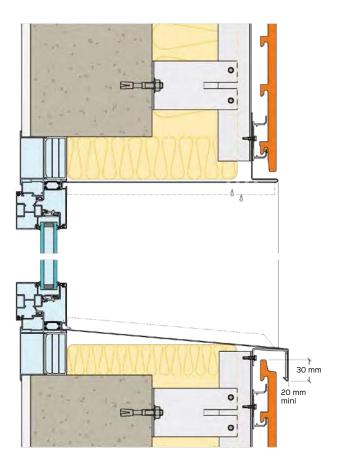


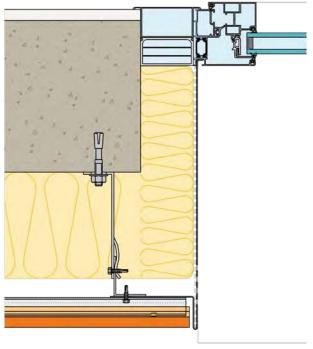


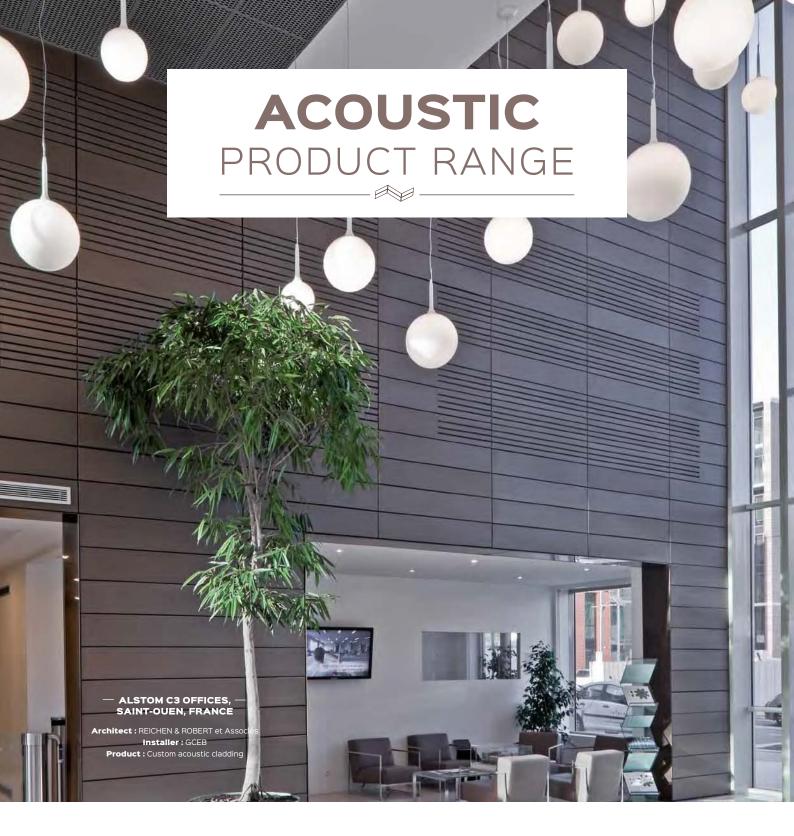


# DETAIL : WINDOW FRAME FLUSH WITH INSIDE WALL









Terreal offers three solutions based on Zephir® Evolution to reduce sound distortions in open environments.

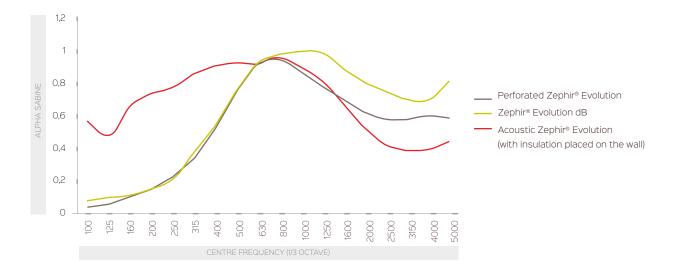






### SOUND ABSORPTION

COEFFICIENT (SABIN)



PRODUCT	<i>Perforated</i> Zephir® Evolution	Zephir® Evolution <i>dB</i>	Acoustic Zephir Evolution	
Perforation ratio	20%	20%	20%	
Sound absorption ( $\alpha$ )	$\alpha_{\rm w}$ = 0.55 (LM)	$\alpha_{\rm w}$ = 0.5 (M)	$\alpha_{w} = 0.5 \text{ (M)}$	
Characteristics	Single skin product perforated horizontally, without insulation. Sound absorption is achieved by insulation placed on the wall.	Single skin product perfora- ted horizontally, insulated using 20mm glass wool batt with a black layer on the visible side.	Double skin product perforated horizontally. The hollows contain 30x60cm glass wool insulation with a black layer on the visible side.	
Usage	Very effective on low and medium frequencies. For public venues and industrial premises.	For public venues, industrial premises.	For public venues, industrial premises, noise barriers.	
Impact resistance	NA*	NA*	Q3	

\* Not applicable

### **CHARACTERISTICS OF THE INSULATION MATERIAL**

- Thin, strong, high-density insulation made of glass wool, covered with black fibreglass on one side.
- Density: 53kg/m².
- Thickness: 20mm for Perforated Zephir® Evolution, 30mm for Acoustic Zephir® Evolution.
- Black coloured fibreglass fabric: 60g/m.
- Fire rating: A2 S1 D0.

### **ADVANTAGES**

- Perfect for low and medium frequencies.
- Large choice of colours.
- Good fire resistance.

 $<sup>\</sup>ensuremath{^{*}}$  Installation locations should be studied for impact requirements

## PITERAK® XS

Piterak® XS is a cost-effective ventilated wall cladding product installed with clips fixed to vertical profiles. Its light weight allows for easy handling on site and reduced transportation costs. Aesthetical and modern, Piterak® XS is available up to 120cm-long.



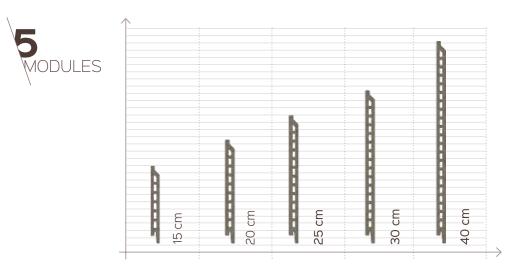
# ADVANTAGES



- Cost-effective double skin cladding
- Incomparable lightness (30kg/m²)
- Optimisation of the transport cost (size and weight)
- Choice of installation: horizontal, vertical (with V-Clip® system, see p52)
- Simple and fast installation using clips







All module heights and lengths are available in imperial dimensional products



#### STANDARD SIZES AND PERFORMANCES

PROI	DUCT	MODULE H x L mm	DIMENSIONS H x L x Th mm	WEIGHT /U per Kg	WEIGHT /m² per Kg	IMPACT RESISTANCE*	WIND RESISTANCE
PITERAK® XS	15	150 x 1200	159 x 1200 x 18	5,5	30	-	-
	20	150 x 1200	209 x 1200 x 18	7,4	30	-	-
	25	250 x 1200	259 x 1200 x 18	9,2	30	Q3*	V3* (2059)
	30	300 X 1200	309 X 1200 X 18	11	30	Q3	V3* (1716 PA)
	40	400 X 1200	409 X 1200 X 18	14,8	30	Q3	V2* (1287 PA)

H = Height ; L = Length ; Th. = Thickness

All Module Heights and Lengths are available in Imperial Dimensional Products

#### **INSTALLATION PROPERTIES**

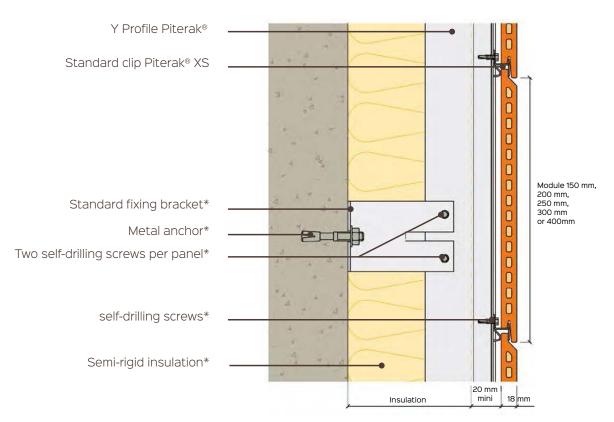
- Substrate type: Concrete wall, coated masonry, and framed walls
- Primary framework : Metal
- Panels installed with clips on a metal vertical framework fixed to the wall.
- The vertical uprights are aligned with the open joints. Their shape drains rainwater in order to protect both the wall and the insulation.
- Air gap for ventilation : minimum 20mm.
- 45° mitre cut available from factory.
- Frost resistance: Complies with standard NF EN 539-2.
- Worldwide compliance and testing certificates have been achieved

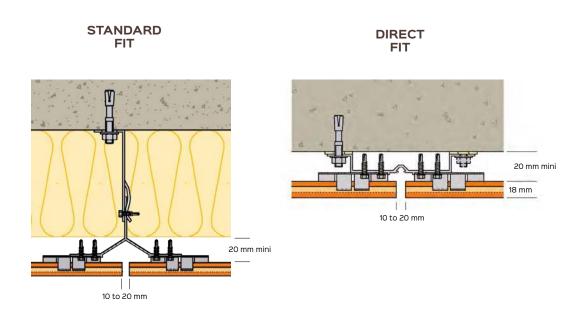


<sup>\*</sup> Maximum resistance reached with a reinforced installation (reinforcement with intermediate profile)

# STANDARD INSTALLATION DETAILS



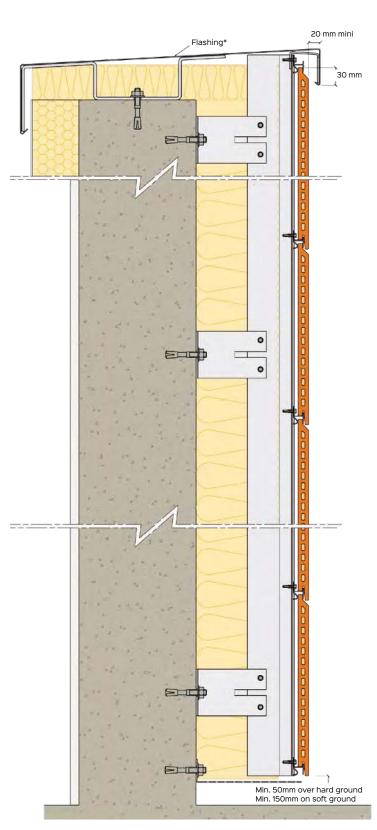




<sup>\*</sup> Not furnished by Terreal

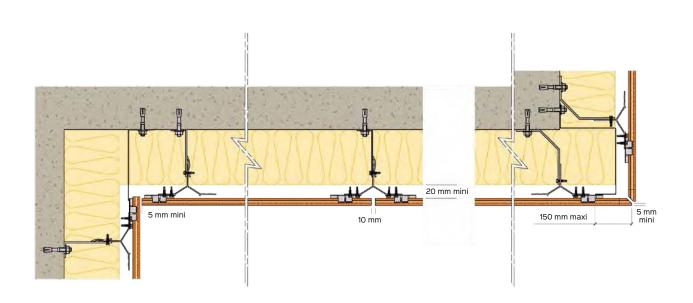


# DETAIL: WALL BASE AND PARAPET



\*Not furnished by Terreal





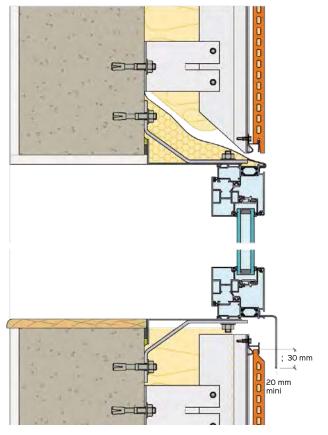


### DETAIL:

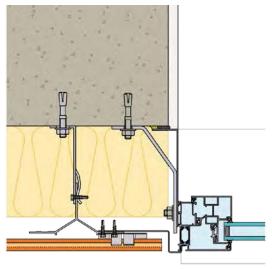
# WINDOW FRAME FLUSH WITH OUTSIDE WALL



Lintel



Window sill



Jambs

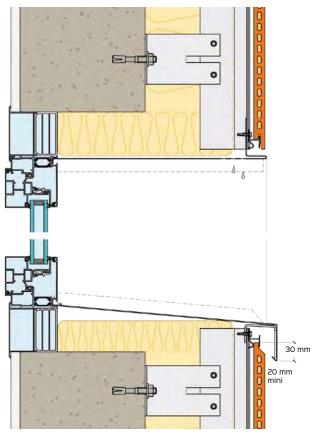


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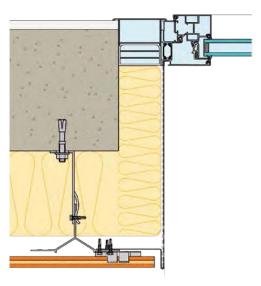
### WINDOW FRAME FLUSH WITH INSIDE WALL



### Lintel



Window sill

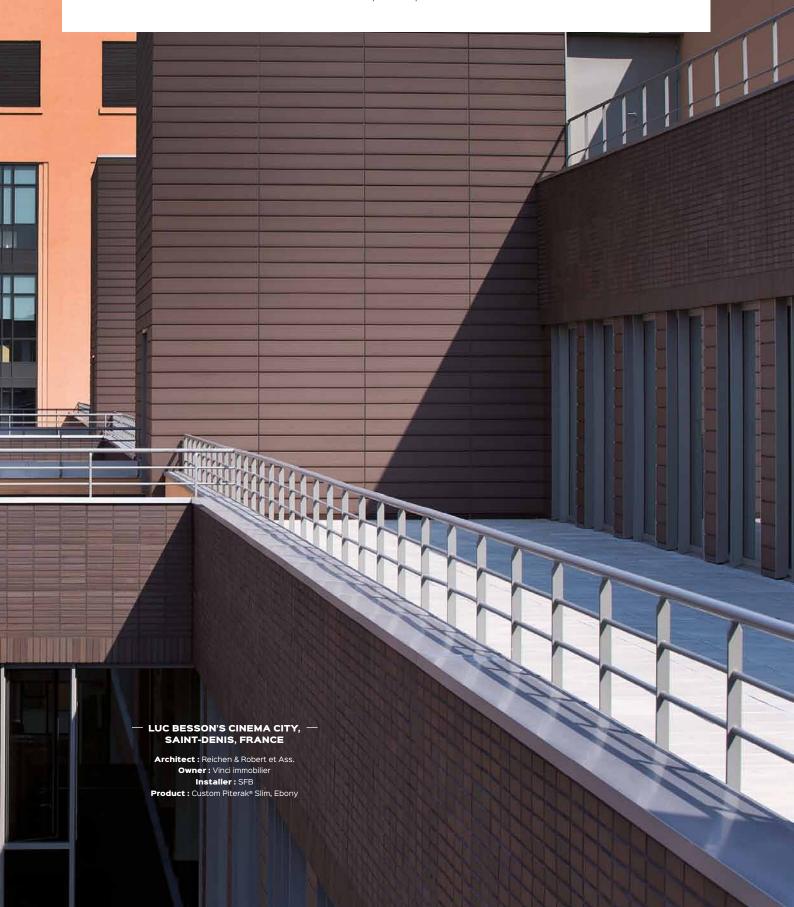


Jambs

### PITERAK® SLIM



Piterak® Slim is a large format terracotta cladding system with overlapping horizontal joints. It is installed with clips fixed on vertical profiles. Used with the V-Clip® system from LABEL Façade, it is officially approved for vertical installation. Piterak® Slim is tough, rated Q4 for impact resistance, and can be used at ground level even in public spaces.





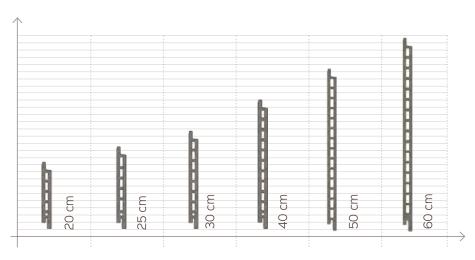
### ADVANTAGES

- Many customization possibilities : colours, finishes, shapes, sizes
- Choice of installation : horizontal, vertical (with V-Clip® system, see p52)
- Simple and fast installation using clips
- High impact performance : for installation at ground level









All module heights and lengths are available in imperial dimensional products



#### STANDARD SIZES AND PERFORMANCES

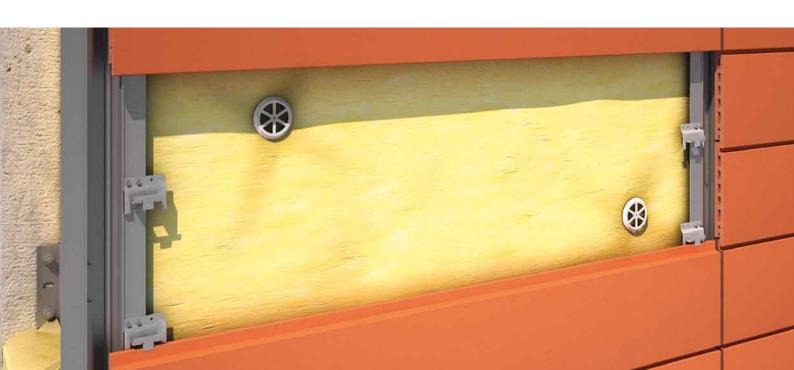
PROI	DUCT	MODULE H x L mm	DIMENSIONS HxLxTh mm	WEIGHT /U per Kg	WEIGHT per M²	IMPACT RESISTANCE*	WIND RESISTANCE
Σ	20	200 x 1520	214 x 1520 x 30	14,6	48,5	Q4	V3 (1936 Pa)
K® SLIM	25	250 x 1520	264 x 1520 x 30	18,2	48,5	Q4	V3 (2219 Pa)
PITERAK®	30	300 x 1520	314 x 1520 x 30	21,8	48,5	Q4	V4 (2359 Pa)
Δ.	40	400 x 1520	414 x 1520 x 30	29,5	48,5	Q4	V2 (1465 Pa)

H = Height ; L = Length ; Th. = Thickness

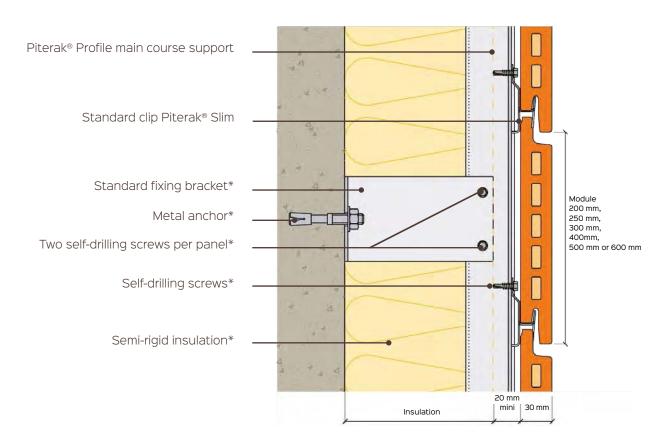
All module heights and lengths are available in imperial dimensional products

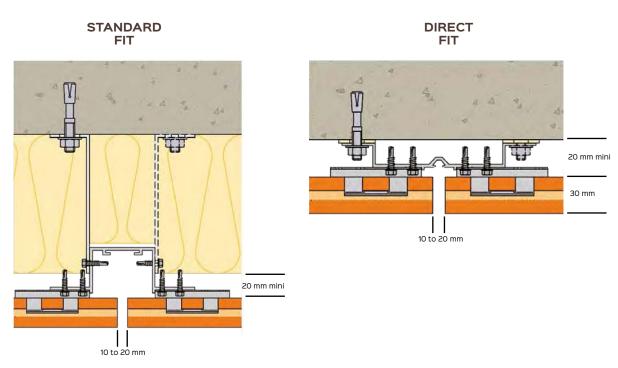
#### **INSTALLATION PROPERTIES**

- Under Technical Assessment No. 2/10-1429.
- Substrate type: Concrete wall, coated masonry, masonry, framed walls.
- Primary framework : Metal
- Panels installed with clips on a metal or timber vertical framework fixed to the wall.
- The vertical uprights are aligned with the open joints. Their shape drains rainwater in order to protect both the wall and the insulation.
- Very simple to replace one broken panel.
- Air gap for ventilation : minimum 20mm.
- 45° mitre cut available from factory.
- Seismic performance : Approved in zones 4, for buildings types II, with insulation up to 100 mm.
- Frost resistance : Complies with standard NF EN 539-2
- Worldwide compliance and testing certificates have been achieved



# STANDARD INSTALLATION DETAILS

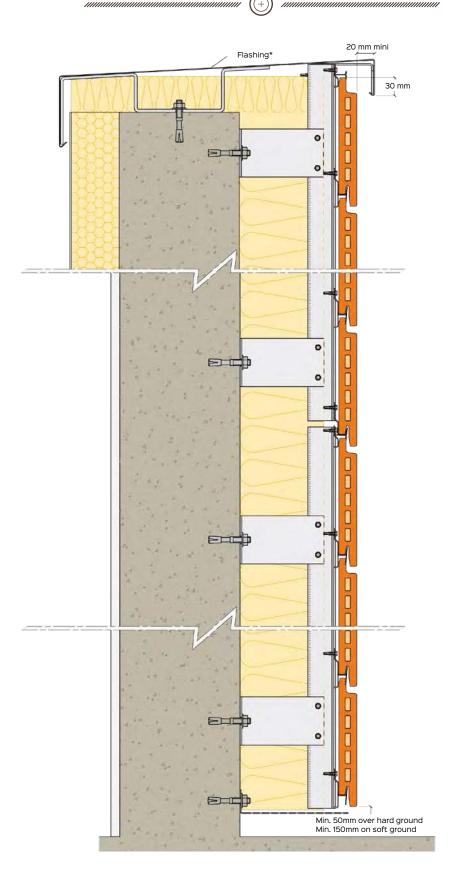




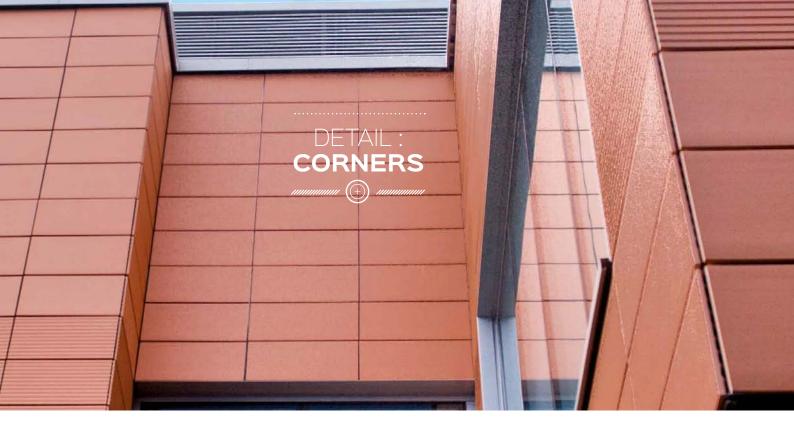
<sup>\*</sup> Not furnished by Terreal

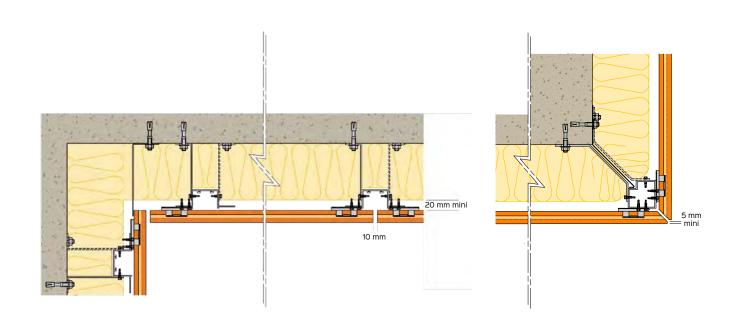


# DETAIL : WALL BASE AND PARAPET



\* Not furnished by Terreal





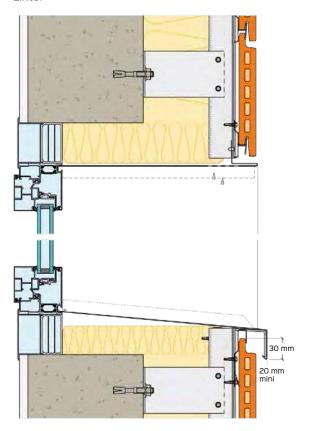


### DETAIL:

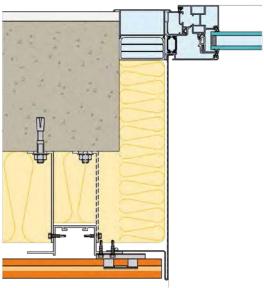
### WINDOW FRAME FLUSH WITH INSIDE WALL



Lintel



Window sill



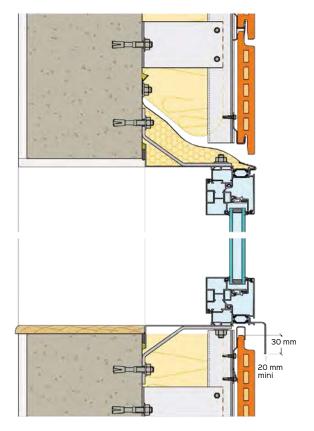
Jambs



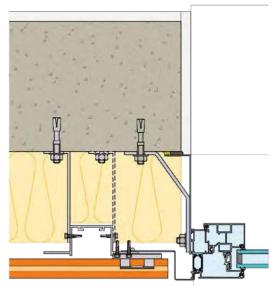
# DETAIL : WINDOW FRAME FLUSH WITH OUTSIDE WALL



#### Lintel



Window sill



Jambs

## **MAESTRAL®**



Maestral® is a wall cladding system with a unique look. The open horizontal joints and rounded edges break with the traditional straight lines of wall cladding to bring shape and depth to façades. Mounted with clips fixed to vertical profiles, it can be installed horizontally or vertically on flat or curved walls, in various patterns: stacked, staggered, or with open joints.

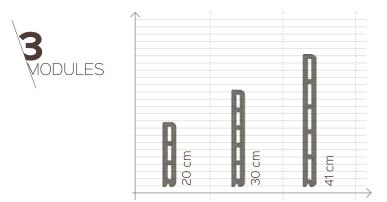


## ADVANTAGES



- Unique aesthetics bringing shape and depth to the façade
- Length up to 150cm
- Flexible installation : horizontal, vertical, linear, staggered
- Can be installed with open joints
- Impact performance: Rated Q4, can be installed at ground level
- Simple and fast installation using clips





All module heights and lengths are available in imperial dimensional products



#### STANDARD SIZES AND PERFORMANCES

PRO	DUCT	MODULE H x L mm	DIMENSIONS H x L x Th mm	WEIGHT /U per Kg	WEIGHT /m² per Kg	IMPACT RESISTANCE*	WIND RESISTANCE
AL®	20	210 x 1520**	200 x 1520 x 40	19,8	61	Up to Q4*	V3 (1930 Pa)
MAESTRAL	30	310 x 1520**	300 x 1520 x 40	29	61	Q4	V2 (1470 Pa)
×	41	420 x 1400**	410 x 1400 x 40	35	61	Q4	V1 (1120 Pa)

H = Height · L = Length · Th = Thickness

All module heights and lengths are available in imperial dimensional products

#### **INSTALLATION PROPERTIES**

- Under Technical Assessment No.2/10-1428.
- Substrate: Concrete wall, coated masonry timber framed walls.
- Primary framework : Metal or timber.
- Installation using dedicated stainless steel clips with EPDM interface.
- **Vertical support profiles** with a protruding ridge that protects against weather and contributes to the overall aesthetics of the cladding.
- Very simple replacement of a broken panel.
- Air gap for ventilation : Minimum 20mm.
- Corner terracotta product available.
- Vertical joints: 20 to 30mm.
- Seismic performance: Approved in zones 4 for buildings types II with insulation up to 120 mm.
- Frost resistance: Complies with standard NF EN 539-2.
- Worldwide compliance and testing certificates have been achieved

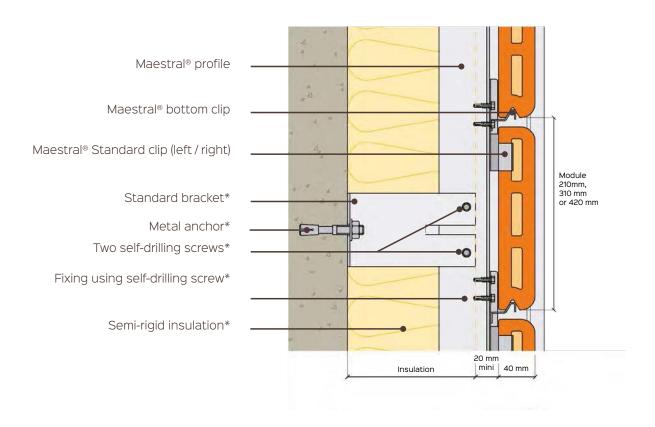


<sup>\*</sup> With additional upright

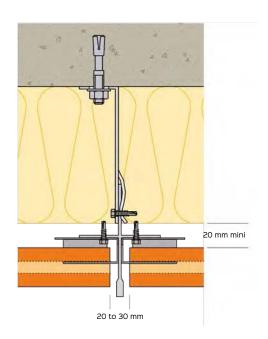
<sup>\*\*</sup> for a 1 cm horizontal joint and for a 2 cm vertical joint

# STANDARD INSTALLATION DETAILS

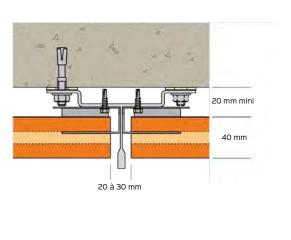




#### STANDARD FIT



#### DIRECT FIT

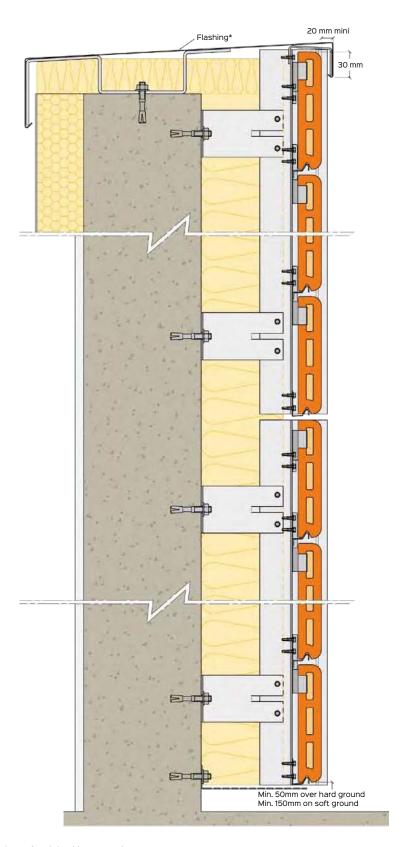


<sup>\*</sup> Not furnished by Terreal

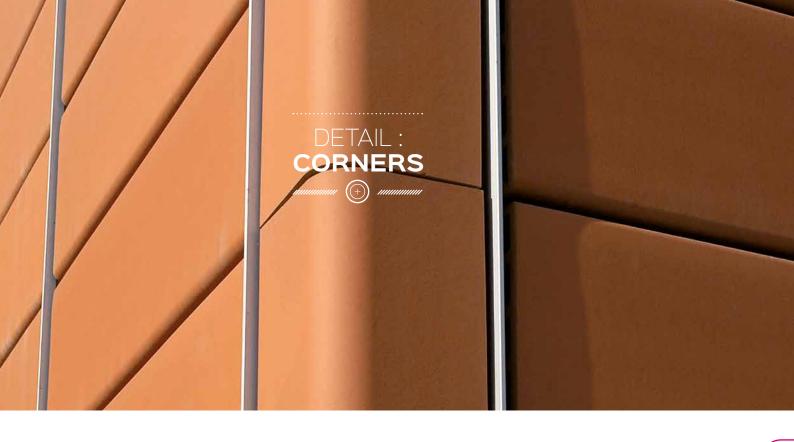


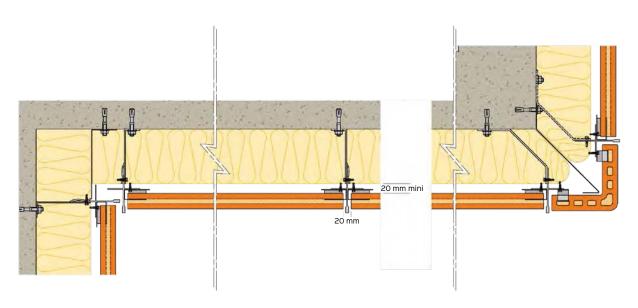
# DETAIL : WALL BASE AND PARAPET

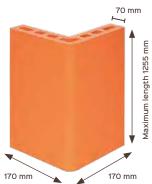




<sup>\*</sup> Not furnished by Terreal





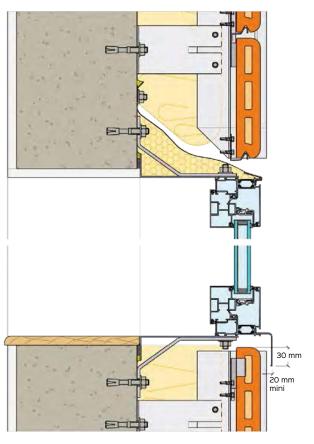




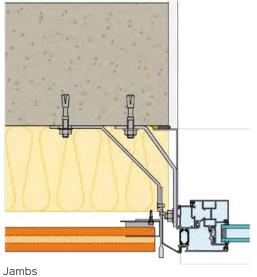
# DETAIL : WINDOW FRAME FLUSH WITH OUTSIDE WALL



Lintel



Window sill



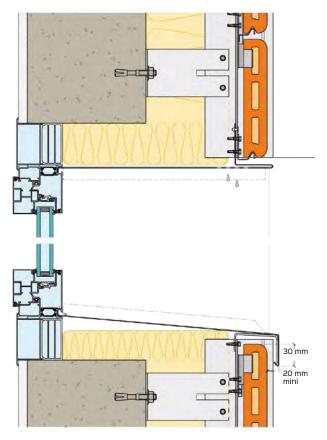


### DETAIL:

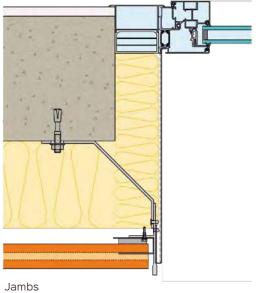
# WINDOW FRAME FLUSH WITH INSIDE WALL



#### Lintel



Window sill



# VERTICAL INSTALLATION

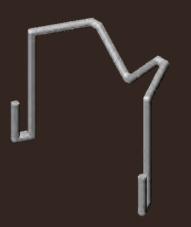
with V-Clip® label façade



TERREAL Façade adds the V-Clip® system from the LABEL FAÇADE company to its extensive range of cladding solutions. Tested and approved by the CSTB, the V-Clip® fixing system is made of a high performance steel wire clip that locks on a horizontal rail. With V-Clip®, the products Piterak® Slim, Piterak® XS and Maestral® can be installed vertically on flat or curved surfaces. This system reduces the horizontal joint to 8mm. As a result the cladding looks more continuous, emphasizing the verticality of the façade.

Technical Assessment No.2/09-1362





## ADVANTAGES

- System technical assessment
- Fits with all configurations of walls
- Fast and easy installation
- System masked by the invisible terracotta alveoli
- Seismic Resistance
- Wind resistance

# Available FOR 3 PRODUCTS







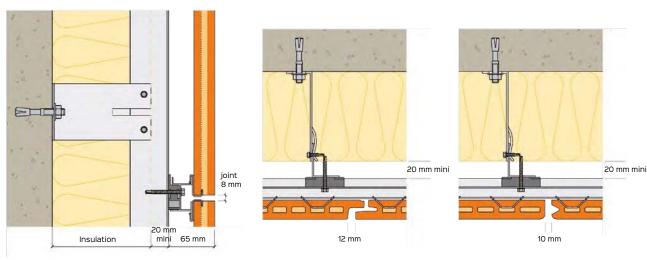
Piterak® XS



Maestral®

### Standard installation

**PETAILS** 

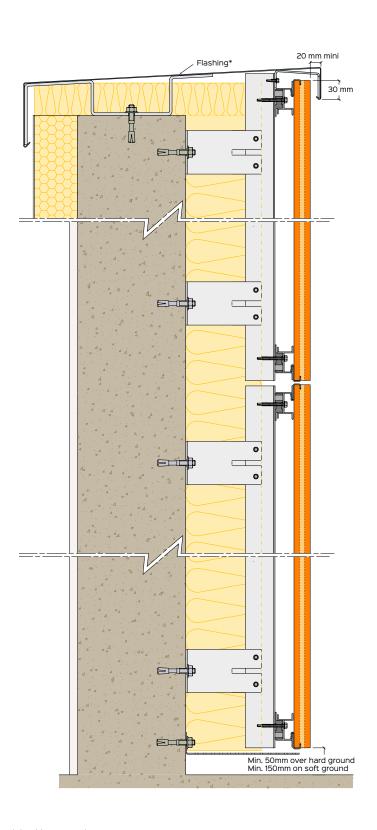


With Piterak® Slim or Piterak® XS

With Maestral®

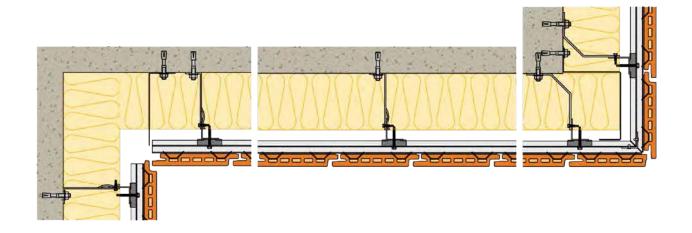


# DETAIL : WALL BASE AND PARAPET



<sup>\*</sup> Not furnished by Terreal





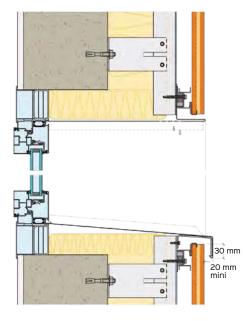


### DETAIL:

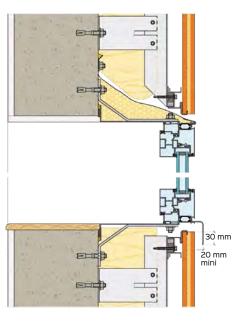
### WINDOW FRAME FLUSH WITH INSIDE AND OUTSIDE WALL



Lintel

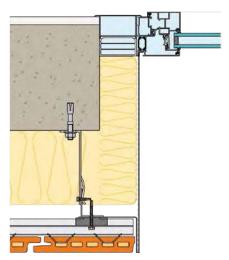


Lintel

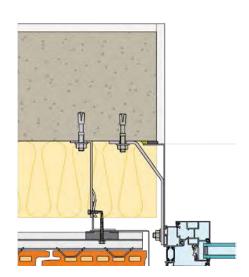


Window sill

Window sill

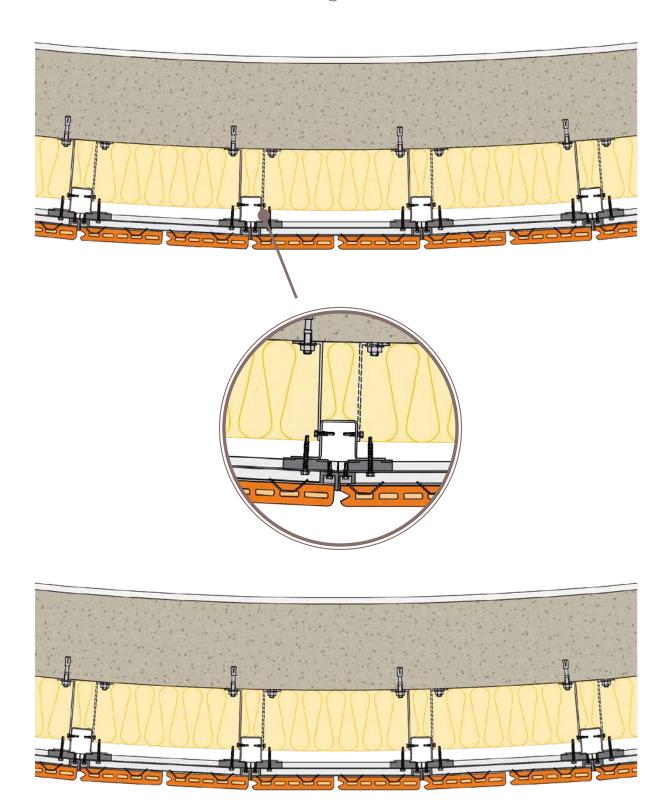


Jambs



Jambs

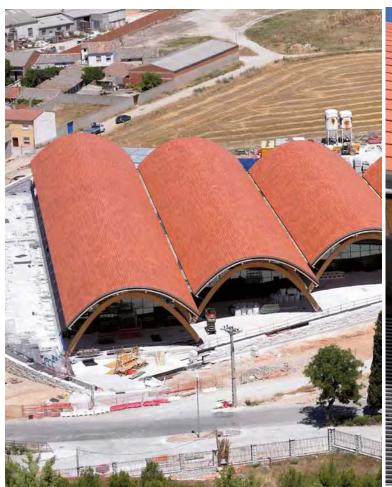
# INSTALLATION ON **CURVED WALLS**



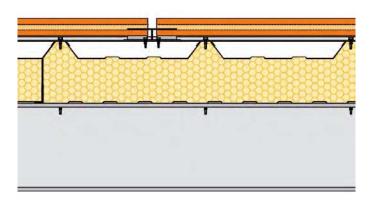


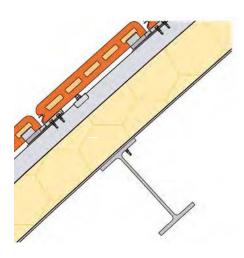
#### THE FACADE EXTENDS

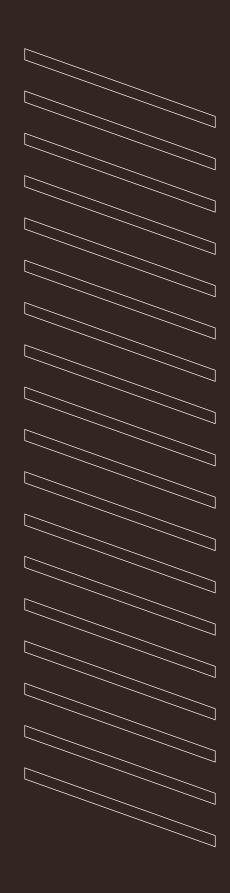
AS A ROOF











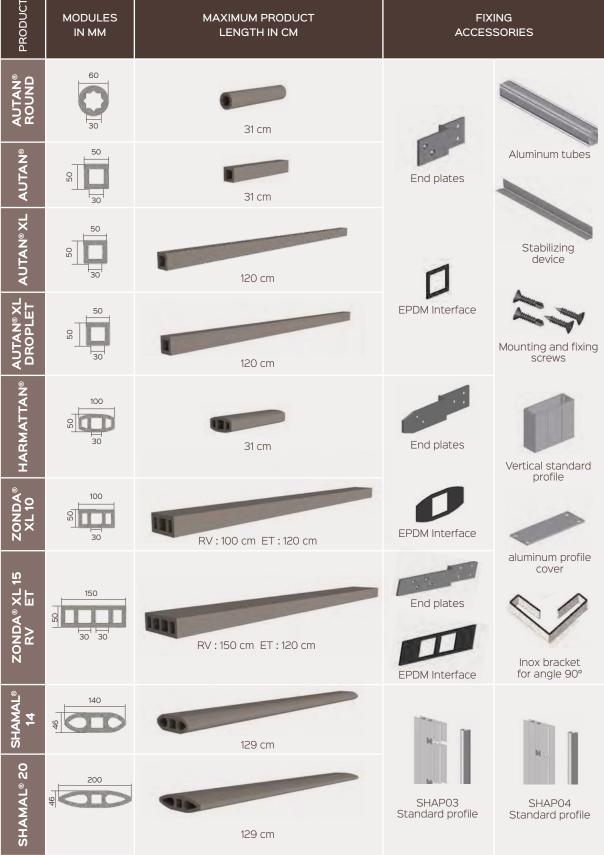
# THE SUNSCREEN PRODUCT RANGE

#### SUN PROTECTION AND VERSATILE DESIGNS

To answer the many requirements of building envelopes and specifically the expectations regarding sun protection, TERREAL offers a wide range of terracotta baguettes that can be used to build sunscreens, wall claddings and visual screens.

As an integral part of the façade, sunscreens provide thermal comfort, let natural light in, and help reduce blinding effects without blocking visual contact with outside. They truly bring façades to life. They create depth and allow the designers to play with shadows, while combining thermal comfort, control of sunlight input and optimization of natural daylight.





#### **PERFORMANCES**

#### SHADE PERCENTAGE

Sun angles considered : Summer Solstice 39°, Equinoxes 45°, Winter Solstice 21°.

PRODUCT	CENTRES	SUMMER SOLSTICE	EQUINOXES	WINTER SOLSTICE
AUTAN®,	15 cm	100%	67%	46%
AUTAN® ROUND, AUTAN® XL, AUTAN® XL	20 cm	89%	50%	35%
DROPLET	25 cm	71%	40%	28%
40.00	20 cm	100%	75%	45%
HARMATTAN®, ZONDA® XL 10	25 cm	100%	60%	36%
A CONTRACTOR OF THE PARTY OF TH	30 cm	100%	50%	30%
No. of London	25 cm	100%	80%	44%
ZONDA® XL 15	© XL 15 30 cm 100%	100%	67%	36%
1	40 cm	100%	50%	27%

	CENTRES	S	UMMER	SOLSTIC	Œ		EQUIN	OXES		WINTER SOLSTICE						
©EO Sh	namal® tilt	O°	15°	30°	45°	Oo	15°	30°	45°	0°	15°	30°	45°			
MAL.	20 cm	100%	100%	100%	100%	100%	100%	100%	100%	43%	67%	86%	100%			
SHAM/	30 cm	100%	100%	100%	100%	70%	84%	92%	94%	29%	44%	57%	66%			
MAL®	20 cm	100%	100%	100%	100%	100%	100%	100%	100%	43%	67%	86%	100%			
SHAM, 20	30 cm	100%	100%	100%	100%	70%	84%	92%	94%	29%	44%	57%	66%			

COLOUR CHART	Stone color	(03.) Champagne	Dune pink	06. Sand	04. Salmon pink	(02.) Red-orange	(01.) Red	07. Siena	Violine	(11.) Sahara beige	Pearl grey	Dark grey	09. Coffee	Chocolate brown	(16.) Ebony	10. Chlak white	Clay grey	12. Light grey	(13.) Storm grey	(15.) Slate grey
AUTAN® XL DROPLET, SHAMAL®, ZONDA® XL	•	•	•			•	•		•	•	•	•		•	•		•		•	
AUTAN® XL, ZONDA® XL		•		•	•	•	•	•		•			•		•	•		•	•	•
AUTAN®, AUTAN® ROUND, HARMATTAN®	•	•				•	•		•	•	•			•	•					

#### **TERRACOTTA BAGUETTES**

## AND ARCHITECTURAL SUN PROTECTION

The Crédit Agricole bank in La Courrouze is the first service sector building to achieve the High Quality Environmental (HQE) certification in Brittany, France.

66 Sunscreen products contributed to achieve the HQE certification thanks to the natural quality of the products and their installation on the South façade, ensuring thermal comfort while allowing daylight to pass through

















### SMALL SUNSCREENS

Small sunscreens are an economical way to bring façades to life. Their versatility adds to all the others advantages of terracotta to implement sun protection, screening, or wall cladding in a playful format, which offers a wide range of architectural choices.



#### **AUTAN®**



#### AUTAN® ROUND



#### **HARMATTAN®**



# ADVANTAGES

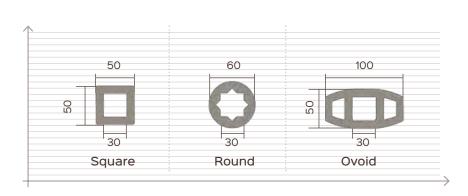
- Cost effective
- Effective sun protection
- Simple and fast installation
- Wide range or shapes and colours pixelated







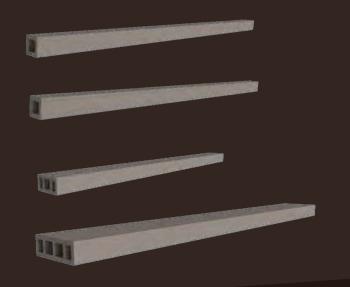




### LARGE SUNSCREENS

Thanks to their long lengths, these sunscreens offer a modern look to realize the full architectural creative potential. Installed vertically or horizontally to protect from sunlight or to decorate façades, they accommodate all types of projects and offer many options to express rich and lasting architectural ideas.





## ADVANTAGES

- Large format for a modern aesthetic
- Effective sun protection
- Simple and fast installation
- Wide range of shapes and colours

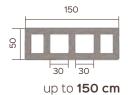
#### **FACTORY RV**



**ZONDA**® **XL 10 RV** 



**ZONDA**® **XL 15 RV** 









#### **FACTORY ET**

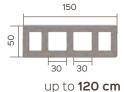


**ZONDA® XL 10 ET** 



up to **120 cm** 















#### STANDARD SIZES

PRODUCT	SECTION mm H X L.	MAXIMUM LENGTH cm	WEIGHT /ml Kg
AUTAN®	50 x 50	31	3,2
AUTAN® Round	Ø 60	31	3,6
HARMATTAN®	50 x 100	31	6,6
AUTAN® XL Droplet	50 x 50	120	3,2
AUTAN® XL	50 x 50	120	3,2
ZONDA® XL 10	50 x 100	RV:100 ET:120	6,4
ZONDA® XL 15	50 x 150	RV:150 ET:120	8

H = Height; L = Length

#### **SUPPORT SYSTEM**

The TERREAL sunscreen system is easily assembled on site and quickly installed on an aluminium framework. Available in four sizes, the installation kit can adapt to all desired lengths by simply cutting the aluminium tube, and can reach up to 180cm.

Its modular design allows varying the centre spacing between sunscreen rows as well as their orientation. It can be installed either vertically or horizontally and offers total architectural freedom.

#### **SYSTEM ADVANTAGES**

- Vertical upright centre spacing up to 180 cm
- Vertical or horizontal installation
- Fixed floor to floor sub-frame profile
- Versatility: choice of spacing and length
- Finish: Anodized or coated with any RAL colour reference
- Compatible with all sunscreen products (except Shamal®)
- Four standard modules: 100, 120, 150 et 180 cm
- Made of aluminium or stainless steel

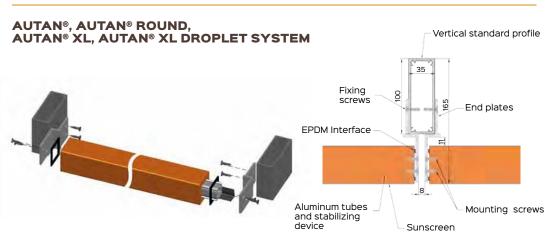


			27 X 27	/			7	11
	Standard module dim. <i>cm</i>	Number of sunscreen products	Tubes aluminium <i>cm</i>	Stabilizing device <i>cm</i>	End plates <i>Units/kit</i>	EPDM interfaces <i>Units/kit</i>	Mounting Screws <i>Units/kit</i>	Fixing screws <i>Units / kit</i>
AUTAN®	120	4 x 29,4	1 x 118,4	1 x 108	2	5	4	4
AUTAN® ROUND	150	5 x 29,4	1 x 148,4	1 x 128	2	6	4	4
HARMATTAN®	180	6 x 29,4	1 x 178,4	1 x 168	2	7	4	4
AUTAN® XL	100	1 x 98	1 x 98,4	1 x 98	2	2	4	4
AUTAN® XL	120	1 x 118	1 x 118,4	1 x 108	2	2	4	4
AUTAN® DROPLET	150	2 x 73,9	1 x 148,4	1 x 128	2	3	4	4
21101 221	180	2 x 88,9	1 x 178,4	1 x 168	2	3	4	4
	100	1 x 98	1 x 98,4	1 x 98	2	2	4	6
ZONDA® XL 10	120	1 x 118	1 x 118,4	1 x 108	2	2	4	6
2011271 712 10	150	2 x 73,9	1 x 148,4	1 x 128	2	3	4	6
	180	2 x 88,9	1 x 178,4	1 x 168	2	3	4	6
	100	1 x 98	2 x 98,4	2 x 98	2	2	8	8
ZONDA® XL 15	120	1 x 118	2 x 118,4	2 x 108	2	2	8	8
	150	2 x 73,9	2 x 148,4	2 x 128	2	3	8	8
	180	2 x 88,9	2 x 178,4	2 x 168	2	3	8	8

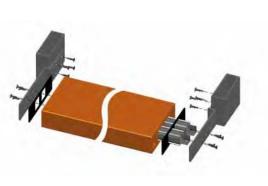
Support profiles are not included in kits



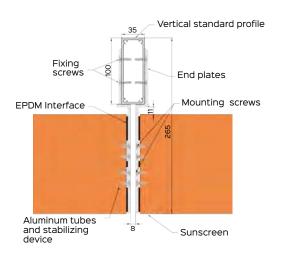
## INSTALLATION **DETAILS**



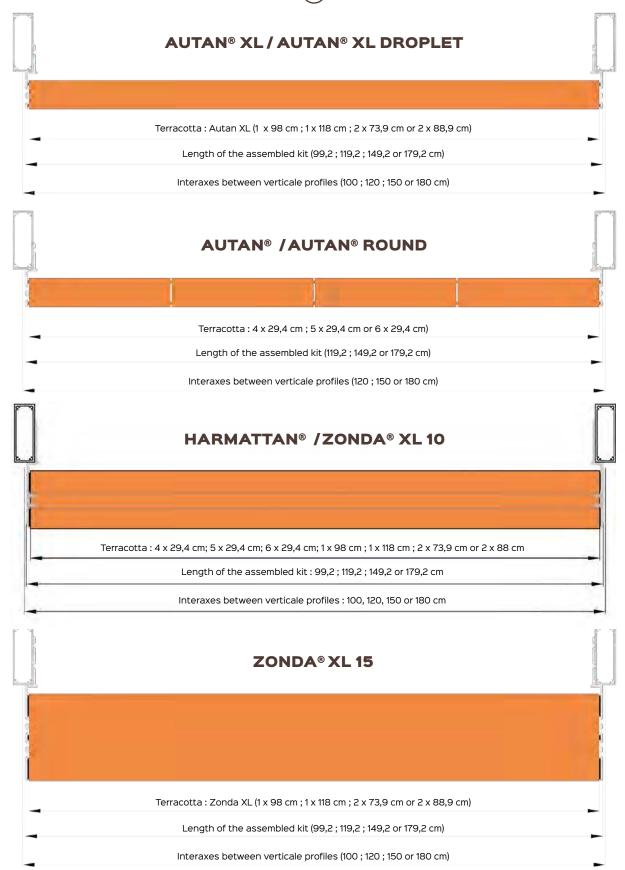
# HARMATTAN®, ZONDA® XL 10 SYSTEM Vertical standard profile Fixing Screws EPDM Interface Aluminum tubes and stabilizing device Mounting screws and stabilizing device



**ZONDA® XL 15 SYSTEM** 





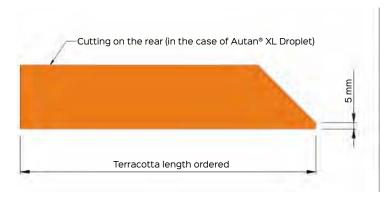


Other lengths are achievable please consult Terreal



#### **ANGLE CUT**

• 45° angle cut at factory is available (optional, on request)

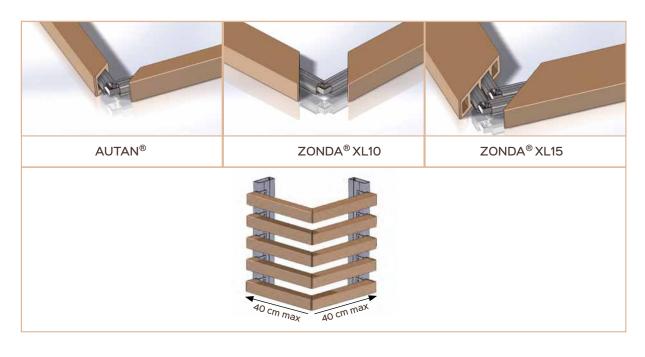




#### **FIXING ACCESSORIE**



#### **SAMPLE IMPLEMENATION**

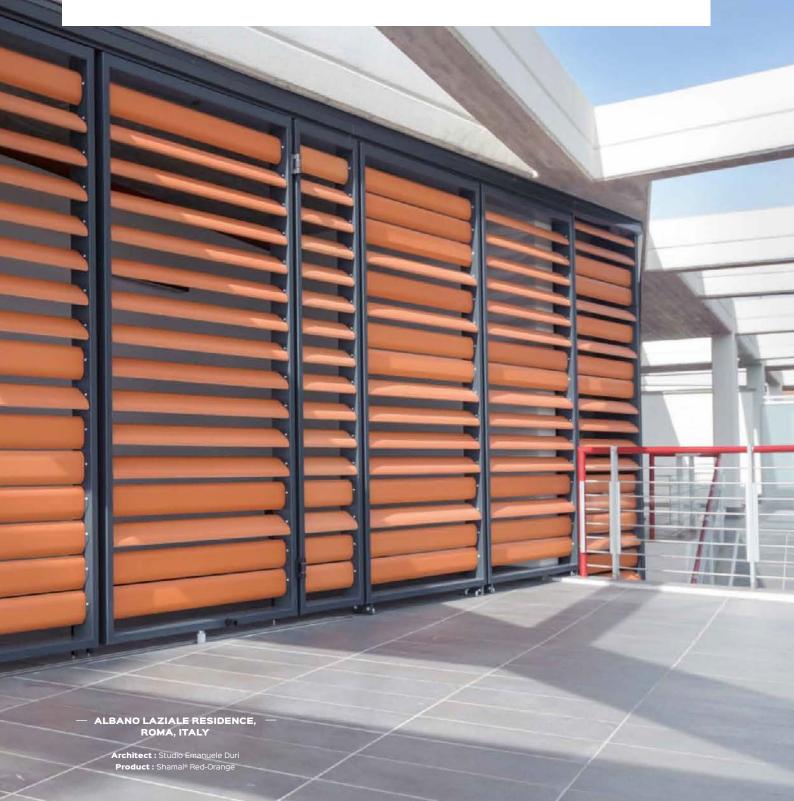




## **SHAMAL®**

Shamal® is a sunscreenbaguette providing an airfoil configuration cross section. It is available with an exclusive fastening system that includes all components required for a complete installation. It provides highly effective sunlight protection and thermal insulation for buildings.

The angle of inclination and spacing of the Shamal® baguettes may be customized to fulfill the requirements of the architectural design.





## ADVANTAGES

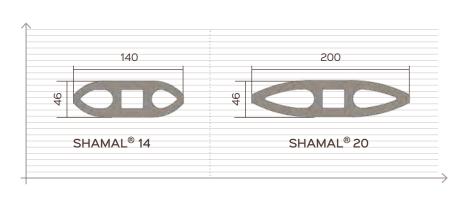
- Available factory assembled
- Effective sunlight protection
- The distinctive shape of an airplane wing
- Large choice of colours



Glazed









#### STANDARD SIZES

PRODUCT	SECTION H x L x w mm	WEIGHT /m² Kg	IMPACT RESISTANCE	WIND RESISTANCE
SHAMAL® 14	46 x 1290* x 140	7,4	-	
SHAMAL® 14 ASSEMBLED	46 x 1313* x 140	7,9	-	1940 Pa (V3) or 244 km/h
SHAMAL® 20	46 x 1290* x 200	9,6	-	(wind tunnel test)
SHAMAL® 20 ASSEMBLED	46 x 1313* x 200	10,7	Q3	

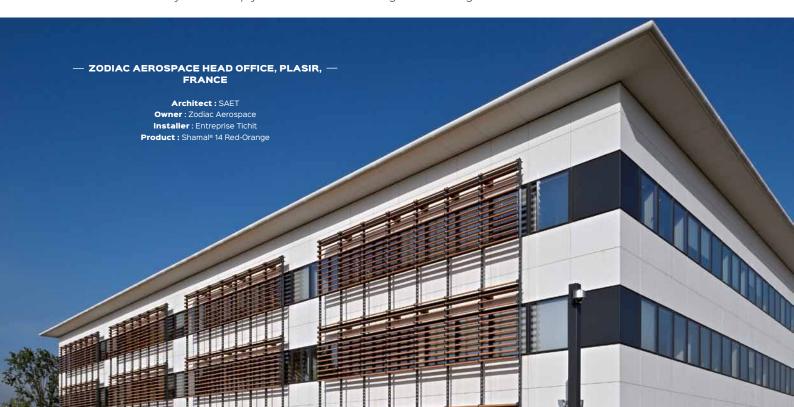
H = height; L: Length; W = Width

#### **SUPPORT SYSTEM**

The Shamal® fixing system includes the Equipped Shamal® elements and the dedicated, spaced vertical support profiles. These dedicated vertical support profiles easily and properly position the assembled Shamal® sunscreens. They allow any orientation around the axis, and offer two possible Shamal® row spacing values (200mm or 300mm). Orientation is set at installation and does not allow changes to the rotation angle; this feature preserves the sunscreen's cohesion and keeps the products in place.

Equipped Shamal® 14 and Shamal® 20 are shipped pre-assembled by Terreal. They include a Shamal® terracotta baguette equipped with metal and rubber components and can be installed directly on a vertical framework that is also available from TERREAL.

Installing Equipped Shamal® on site is very easy, thanks to the system's dedicated notched profiles. These profiles are fixed to the wall using brackets or double brackets. Their position relative to each other and their verticality must comply with codes for installing wall cladding.



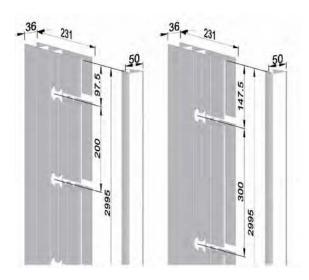
<sup>\*</sup> Theoretical dimensions at close terracotta tolerances



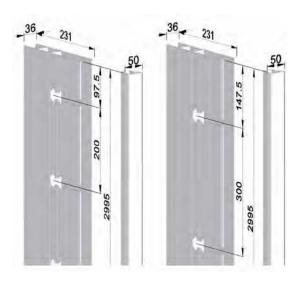


The 2.995m-long Shamal® vertical support profiles are available in field vertical profiles (perforations on both sides) and termination vertical profiles (perforation on one side) that receive the positioning bolt of the Shamal® suspension brackets. Each vertical profile is shipped with a finishing trim for installation on the front before the sunscreen elements are secured in place.

#### **FIELD PROFILE**

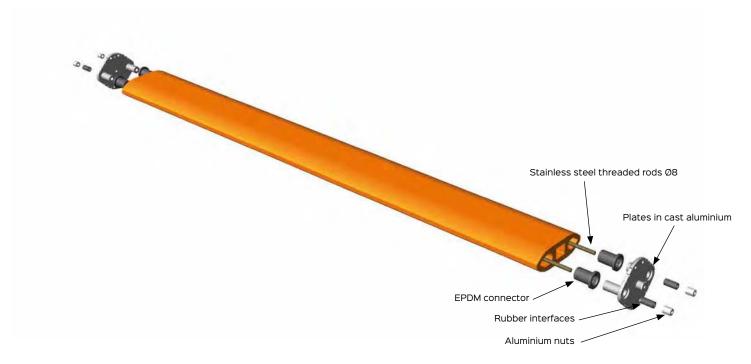


#### **TERMINATION PROFILE**



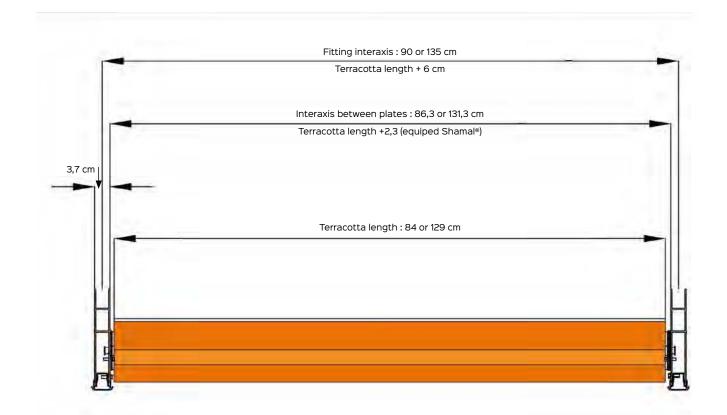


Shamal® 14 or 20

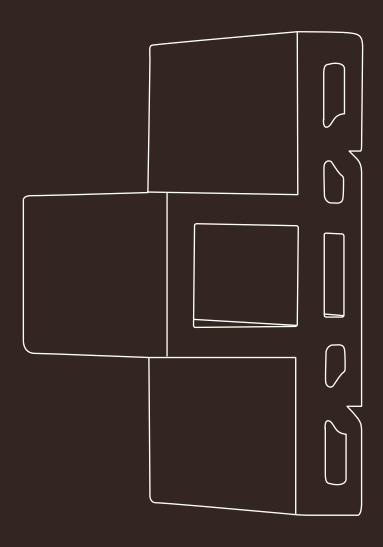












## CUSTOM PRODUCTS

#### ENVISION NEW FAÇADES

TERREAL Façade solutions constantly evolve thanks to the creativity of pioneering architects.

Through innovative formats, volumes, sizes or finishes, terracotta is renewing itself to answer today's and tomorrow's challenges, and is opening new areas in architectural design.

The age-old building material has been, and will remain, at the forefront of materials providing architects with a wide variety of choices, as well as rich and long-lasting designs.

## **3D SHAPES, DEPTH** AND CONTRAST EFFECTS





— BENNET SHOPPING MALL — SACILE, ITALIE

Architect: Gesti Project Studio
Owner: Bennet
Product: T Shape 04. Sable





#### CUSTOM MADE ACCESSORIES TO PERSONALIZE THE EXTERIOR







**GIVE FREE REIN TO YOUR IMAGINATION ...** 



... TO ENVISION NEW SHAPES

## PATINATED CLADDING AND STAGGERED JOINTS





P.93 / WALL CLADDING AND SUNSCREEN

#### **BRIGHTNESS AND COLOUR EFFECTS**

WITH GLAZED FINISHES







### FRÉMICOURT NURSERY — 30 BED LOW-ENERGY BUILDING PARIS, FRANCE

**Architect :** Périphériques Architectes

Owner: Paris habitat
Installer: Cover Back

**Product:** Autan® custom glazed colours

#### **NEUTRAL GLAZED COLOURS FOR** A MODERN APPROACH TO TERRACOTTA

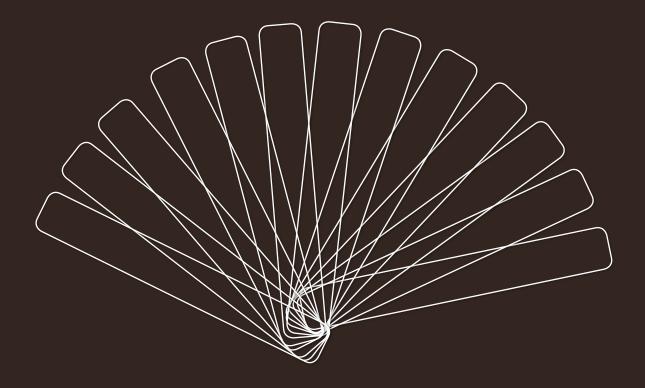




Architect: SCAU Architecture
Owner: Vinci Immobilier
Installer: Mauger père et fils

**Product :** Piterak® Slim Colours Matt White, Matt Grey, and Matt Black





## TERRACOTTA COLOURS

MATERIAL, TEXTURE AND DESIGNS

Colour and material are at the forefront of modern architectural design.

Available in a wide range of colours and finishes, terracotta is the leader among materials that offer architects a rich and long lasting palette of colours to create a dynamic and coherent environment.

The TERREAL collection offers a rich colour range of standard references providing a stimulating tool focused on colour and material.

Everything addresses your senses: the subtlety of smooth skins, the authenticity of sanded skins, the simplicity of ridged skins, and the brightness of glazed finishes.

Following a 5,000-year history, terracotta is still today at the forefront of modernity.

## **STANDARD**THROUGH COLOURS

10. Chalk white	Dune pink
Clay grey	06. Sand
12. Light grey	04.Salmon
(13). Storm grey	(02) .Red-orange
(13). Storm grey	(02) .Red-orange
(13). Storm grey  15. Slate grey	(02) .Red-orange
	(01). Red

Stone colour	
Scoric colour	09. Coffee
(03). Champagne	Chocolate brown
(11).Sahara beige	Ebony
Pearl grey	
Dark grey	

	10. Chalk white	Clay grey	12. Light grey	(13). Storm grey	15. Slate grey	Dune pink	06. Sand	04.Salmon	(02) .Red-orange	(01). Red	Violine	07. Siena	09. Coffee	Chocolat brown	Ebony	Stone colour	(03). Champagne	(11). Sahara beige	Pearl grey	Dark grey
ZEPHIR® EVOLUTION® MAESTRAL® AUTAN® DROPLET SHAMAL® ZONDA® XL		•		•		•			•	•	•			•	•	•	•	•	•	•
PITERAK® SLIM PITERAK® XS AUTAN® XL ZONDA XL®	•		•	•	•		•	•	•	•		•	•		•	2 2 3 4 5 5 6 6 7 7 7 8 8 8 8 8 8 9 8 9 9 9 9 9 9 9 9 9	•	•		
SMALL SUNSCREEN					* * * * * * * * * * * * * * * * * * *				•	•	•			•	•	•	•	•	•	

## STANDARD GLAZED COLOURS

#### THE CHROMA COLLECTION

Bright and deep colours taken from the Chroma wheel

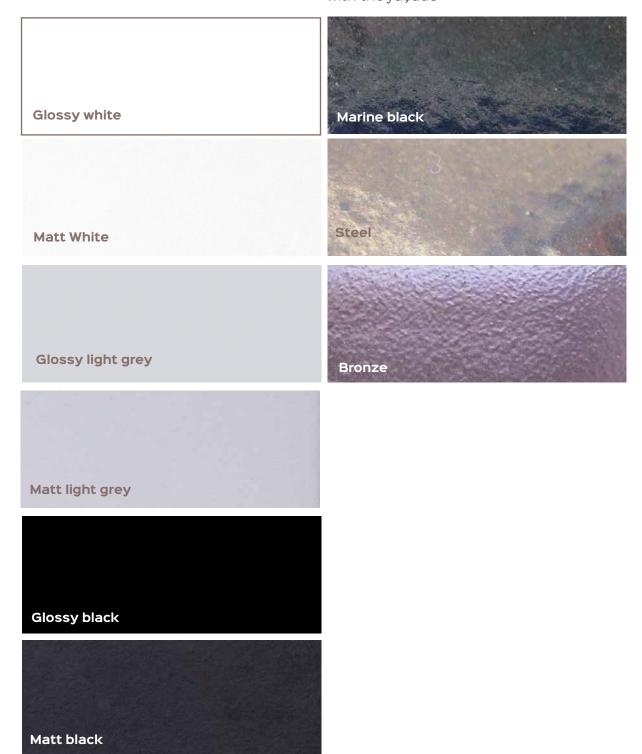


#### THE NEUTRA COLLECTION

Neutral and stylish photographic colours

#### THE VIVA COLLECTION

Lively colours that change and vibrate with the façade



#### **CUSTOM BLUE AND GREEN COLOURS**

FOR A ONE-OF-A-KIND TERRACOTTA FAÇADE



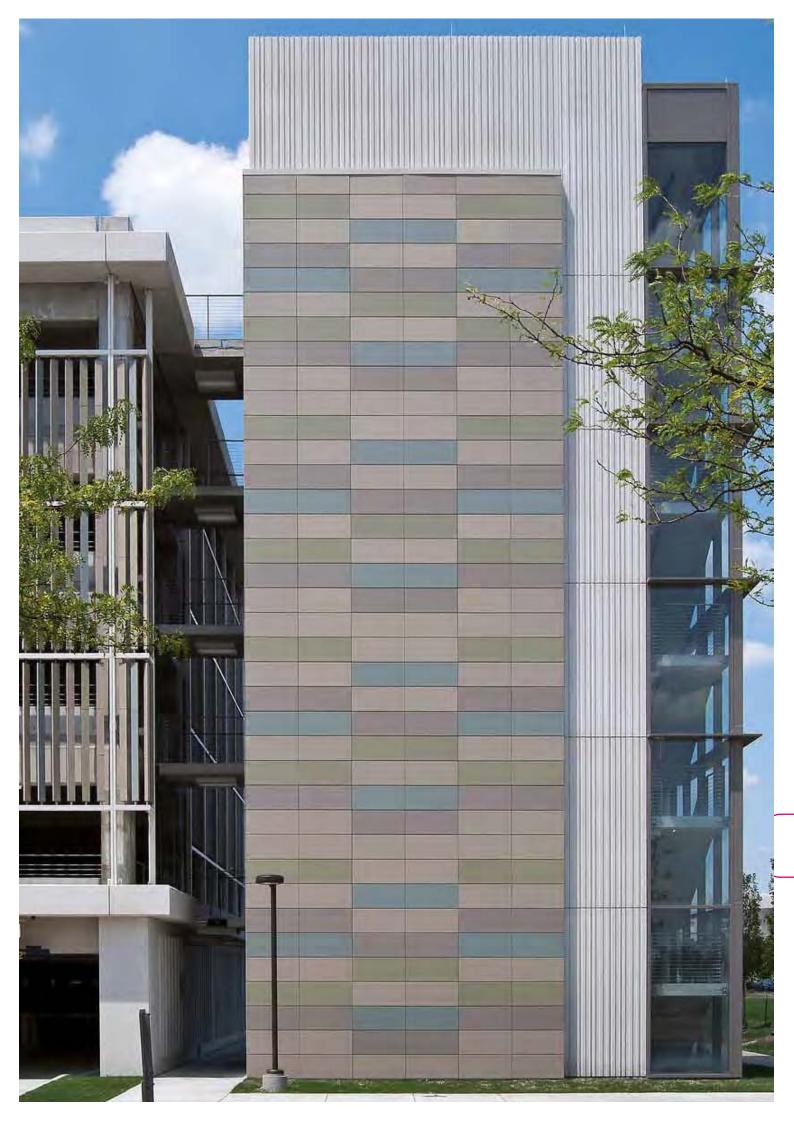
#### - IUPUI SPORTS DISTRICT PARKING GARAGE INDIANAPOLIS, - USA

Owner: Indiana University - Purdue University Indianapolis
Architect: RATIO Architects

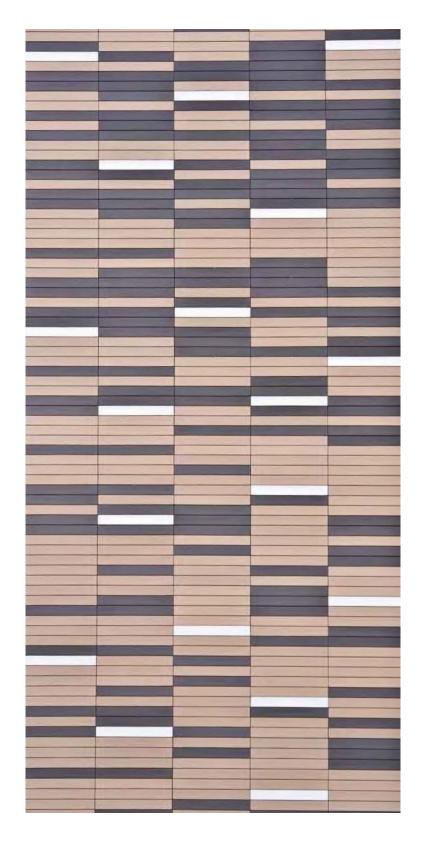
Installer: Wilhelm Construction; Indianapolis, Indiana

**Product :** Piterak Slim® + Zonda® XL sunscreen. Colour 12.Light Grey, 13.Storm Grey,

custom and Blue and Green coloured through





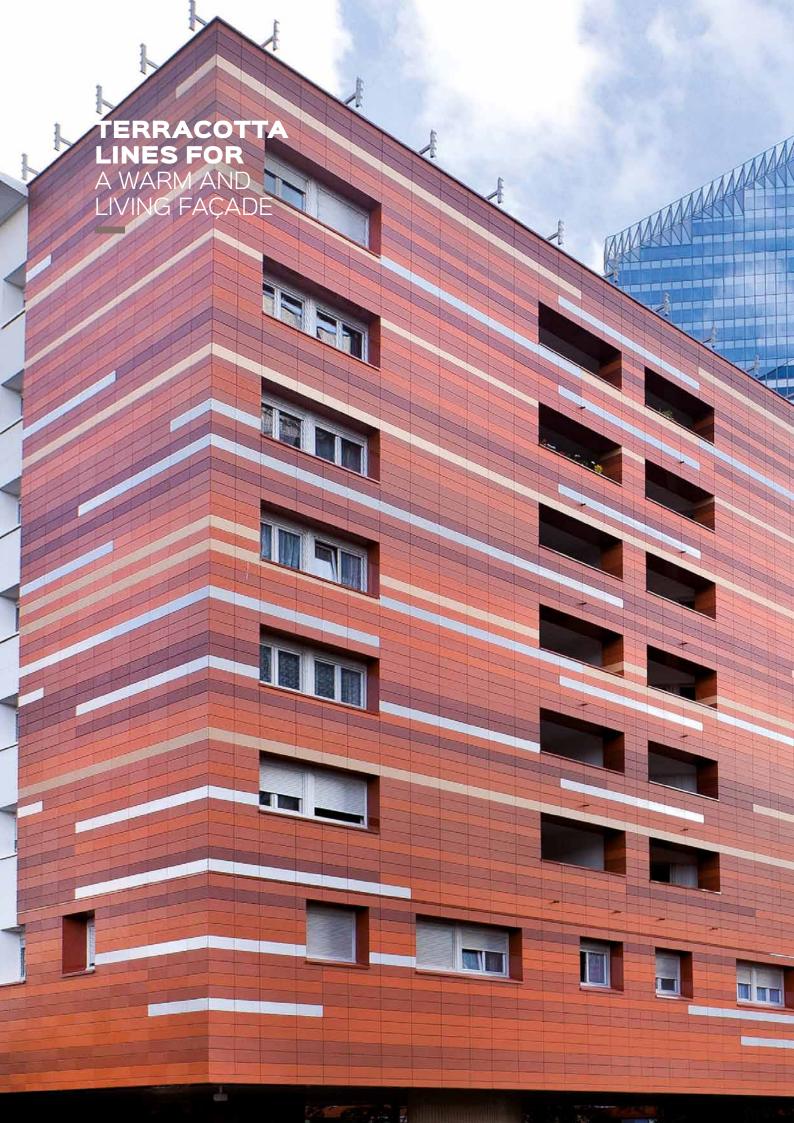


#### $-\,$ RENOVATION OF 11 SOCIAL HOUSING BUILDINGS, $\,-\,$ HULME, GB

Architect: 2e Edelmann et Ebling
Owner: City South Manchester Housing Trust
Installer: Keyclad
Product: Piterak® Slim, 11. Sahara Beige, 13. Storm Grey,
and Matt White Glazed.





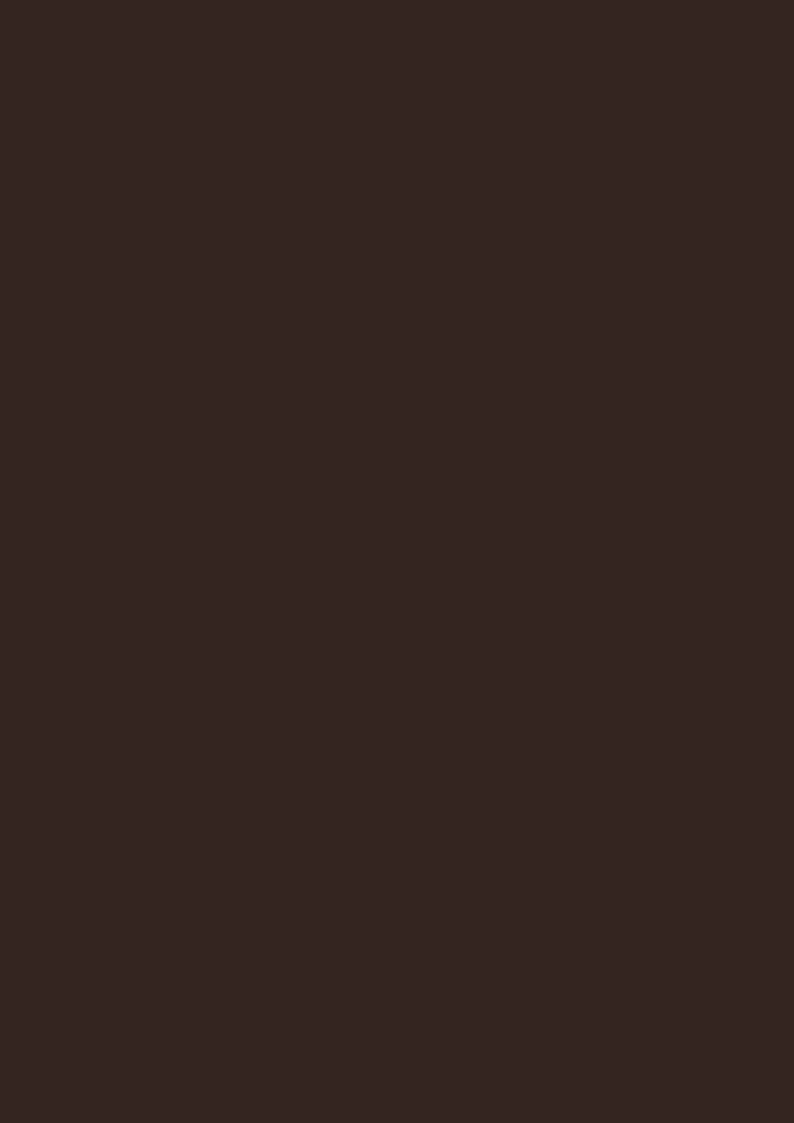












# TERREAL, THE GLOBAL SOLUTION FOR THE BUILDING ENVELOPE

#### **BRICKS AND BRICK SLIPS**

#### REINVENTING AN AGE-OLD MATERIAL

Used in construction for centuries, terracotta bricks have revitalized to meet today's and tomorrow's challenges.

Terreal offers a complete range of bricks and brick slips to let you discover terracotta's extraordinary wealth, its many installation possibilities, and its amazing ability to accommodate all types of buildings. Available in a wide range of colours and sizes, everything will address your senses: the subtlety of smooth skins, the roughness of sanded skins, the brightness of glazed finishes, and the authenticity of hand-moulded surfaces.







Classic, hand-moulded, textured or glazed: discover Terrreal's brick and brick slip range on :  ${\bf WWW.TERREALFACADE.COM}$ 

#### MAAX BRICK LINE, A TIMELESS MODERNITY

From ancient times to the present, the continuous evolution has involved in brickwork construction design and techniques. Today, Terreal San Marco has reinvented terracotta, transforming it into a modern, flexible material with not only distinctive character but also suitable for more innovative and unconventional architectural design. To this end, Terreal San Marco created MAAX, "Mattone Artistico e Architettonico eXtralarge" (Artistic and Architectural eXtralarge Brick). The research and innovation of the MAAX range are inspired by the harmonising of contemporary architectural designs with those of the historic ones. This gives designers the expressive possibilities of clay, with the technical performance required by any modern project.



### **ADVANTAGES**

- ✓ A unique aesthetic modern and innovative,
- ✓ A range of trendy colours,
- ☑ Gives an unmistakable vibrancy to the façades
- ✓ Frost resistant products,
- ✓ Sustainability and maintenance free,
- Material that naturally embodies extraordinary thermal and structural performance,





Discover the incomparable made in Italy facing brick and tile products on our website:  ${\bf WWW.SANMARCO.IT}$ 

# **WALL CLADDING TILE**WHEN ROOFS BLEND WITH FAÇADES

With rich colours and varied formats, Terreal's terracotta tiles open new creative fields. Our wall cladding tile solutions provide durable and cost-effective ways to create unconventional building envelopes, particularly when the tile chosen for the roof extends onto the façade.



## **ADVANTAGES**



- ✓ Cost-effective solution,
- ✓ Unique aesthetics for the perception of continuity,
- ✓ Terracotta's well-known durability,
- ✓ Wide range of colours
- ☑ Simple and fast to install



 $\label{thm:continuous} \textit{Terracotta tiles}, \textit{roof products}, \textit{insulation or solar systems}. \textit{Discover Terreal's roofing solutions on}: \\ \textbf{WWW.TERREALCOUVERTURE.COM}$ 

# CREATES UNIQUE VISUAL IMPACT WITH LUDOWICI CUSTOM TILES

With six standard textures Terreal's NeXclad System offers architects an extensive range of finish options from smooth to slate. Combined with over fifty standard colours and an infinite pallet of custom colours the architectural possibilities are endless. The unique custom capabilities of tiles to produce pressed panels with three-dimensional patterns allow architects to go beyond standard flat panels. Subtle to dramatic effects can be created with the interplay of rolling surfaces, geometric shapes and shadow.



## **ADVANTAGES**



- ✓ Large variety of standard surfaces and colours,
- ✓ Unparalleled custom colour capability,
- √ Fast to install,
- Easily adapted to radius wall or roof design,
- √ 75 year product warranty that covers colour fastness

  Meets building standards (under technical assessment),
- ☑ Strong performance in terms of resistance to wind and impacts; sometimes increased by a local strengthening of the loadbearing structures
- Simplicity of how a piece is replaced in the event of breakage.



Discover all the roof, floor and wall tiles range of Terreal Ludowici on our website: WWW.LUDOWICI.COM

## DIABOLO, ARCHITECTURAL INNOVATION FOR FLOORS

Enhance your open spaces with Diabolo, the combination of a natural material with an eco-friendly floor. The use of terracotta highlights your projects' elegance and authenticity. The vegetal finish respects any wish for an ecologically responsible and sustainable development.

Diabolo is an architectural vision developed specifically by Terreal and Renzo Piano with tomorrow's urban landscapes in mind.

Diabolo is the fruit of the partnership between Terreal and the Renzo Piano Building Workshop, with the support of AIA INGENIERIE, for the exterior design of the parade grounds at Amiens' Citadel.





« The idea came from Renzo Piano during his first public visit of the Amiens Citadel. The Citadel must be a good, "HAPPY" place to live, a place for interaction and sharing, where one can sit on the grass on grounds that dries very fast and can welcome the infrastructures required for artistic performances.

Diabolo's shape directly derives from these multiple uses: To be resistant to loads on a well-prepared floor that drains fast, and to receive both soil and fitting lawn. We have high hopes for this innovation and its applications. »

Paul Vincent, for Renzo Piano Building Workshop



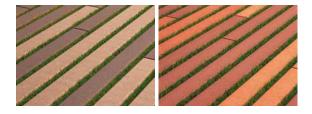
- ✓ An innovative, 100% terracotta product
- ☑ A high-quality, durable and warm material
- An eco-responsible and self-draining floor that can be installed without any slope (or totally horizontal)
- ✓ A customisable product offering many combinations of sizes and colours
- ✓ Can be used for pedestrian or motorized traffic



✓ Length: de 90 cm to 130 cm

Height: 10 cm
Wide: 5.75 cm





## FLOOR PRODUCT RANGE





Discover the other terracotta floor solutions on our website: www.terrealdeco.fr

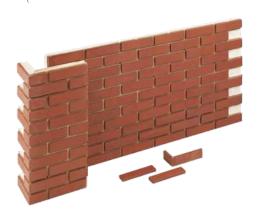
# THERMOREAL®-GEBRICK®: PRE-ASSEMBLED INSULATED PANELS

Thermoreal®-Gebrick® is a 1m², 60mm thick panel made of wall facing elements bonded to insulating polyurethane foam. It is fixed to the substrate by mechanical fasteners. It is suited for both new construction and renovation projects, and may be completed with additional insulation - up to 120mm thick – to reach a maximum thermal resistance of 6.79kW/m².

This external thermal insulation solution is rated Q4 for impact resistance, and can be installed at ground level including in public areas. These panels are laid dry, thus mounted very quickly. They can be installed horizontally, vertically, on flat or curved walls, with open joints or running bond, in random layout or Flemish-style pattern.



## **ADVANTAGES**



- ✓ High thermal performance,
- ☑ Rated Q4 for impact resistance,
- ✓ Fire resistant
- ✓ Can be installed on tall buildings,
- Architectural freedom: varied colours, surfaces, and formats,
- Mix and match of different colours and finishes on a same panel,
- ☑ Durable and maintenance-free system,
- ✓ Cost-effective and fast installation,
- ✓ Versatility: Easy to cut on site,



Discover all advantages of Terreal's wall facing products on: WWW.TERREALFACADE.COM

# TERREAL FAÇADE ACCOMPANY YOU IN YOUR PROJECTS.

Brochures, technical advice, technical drawings, notes for your prescription, colour chart or reference building photos, find all our communication and sales tools on our website.

www.terrealfacade.com



#### ${\bf Cover\ photo\ information:}$

Maison du Bâtiment, Orléans, France Architect : Atelier Poinville Lavaux Owner : SCI Saint Laurent - FFB du Loiret

Installer : Metz

Product : Piterak® et Autan® Chocolate brown, Violine, Red-orange, Dune pink, Champagne, Stone colour

#### Photos credits:

Olivier Brunet, Kamel Khalfi, Sergio Grazia, Marie-Claire Bordaz, ABB fotografos, Christophe Doucet, Hervé Abbadie, Danielle Morra, Michel Dulherm, Terreal

**Design:** www.placepublique.net

TERREAL has been for over 150 years a key player of clay building materials
Based on this unique experience, our group creates innovative solutions for the building envelope, through four activities: roofing, structure, façade, decoration.

TERREAL

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