

TERREAL ROOFING

PRODUCT GUIDE

TERREAL BUILDING BEAUTY



A person wearing a backpack and a cap stands on a rocky ledge, looking out at a vast landscape. In the background, a massive, reddish-brown rock formation rises steeply against a sky filled with soft, white clouds. The scene is captured from a low angle, emphasizing the scale and grandeur of the natural environment.

TERREAL

Building Beauty

The construction industry is a rapidly evolving sector with a major goal of adding value to urban developments and promoting reasonable housing. At the heart of these economic, environmental and social aims are builders, who must act sustainably for the collective well being and better living.

At Terreal, we put this ambition at the core of our mission. We want to contribute to improving housing by providing our professional clients and end users with economic and construction benefits while promoting beauty and comfort. Inspired for over 150 years by the beauty and natural advantages of terracotta, we design, produce and market innovative solutions for building envelope in four areas: roofing, façade, structure and decoration.

Every Terreal manufacturing site measures and regularly declares all its impacts, and implements optimization measures: limiting dust emissions and recycling industrial waste. Before beginning to exploit its quarries, Terreal conducts an initial examination of the fauna and flora, establishes a biodiversity conservation plan and then afterwards rehabilitates the area: reforestation, re-cultivation, creating an area of water, etc.

Terreal. Building Beauty.

Contents

01 INTRODUCTION

- | | | | |
|----|-------------------------------|----|---------|
| 01 | The factory | 05 | Colours |
| 02 | Fabrication & Global presence | | |
| 03 | HomeValue+ | | |

07 ROOF TILES

- | | | | | | |
|----|----------------|----|-------------|----|-----------|
| 09 | Romane Origine | 17 | Peranakan V | 25 | Zen |
| 11 | Romane XL | 19 | Marseille | 27 | E-Legance |
| 15 | Peranakan 8 | 23 | Volnay PV | | |

29 ACCESSORIES & COMPONENTS

- | | | | | | |
|----|---------------------------------------|----|---------------------------------|----|---------------------------------------|
| 29 | Accessories for Mediterranean profile | | | | |
| 31 | Accessories for Flat profile | | | | |
| 33 | Roofing components | | | | |
| 33 | Dry Fix Dry Fix Premium | 34 | Dry Flash premium Flash strip | 35 | SEALMAX sealant Bird stop |
| 36 | DRYMAX ENERGY +™ | 37 | Cool Home System | 38 | COOLMAX Thermal Reflective Insulation |
| 39 | GSE In-Roof System™ | | | | |

41 FACADE

- | | | | |
|----|------------------------------|----|---------------------|
| 43 | Terracotta Sunscreen | 49 | Breeze® Cladding |
| 45 | Terracotta Cladding | 51 | Caring for the roof |
| 47 | Cladding & Sunscreen Colours | | |

The Factory



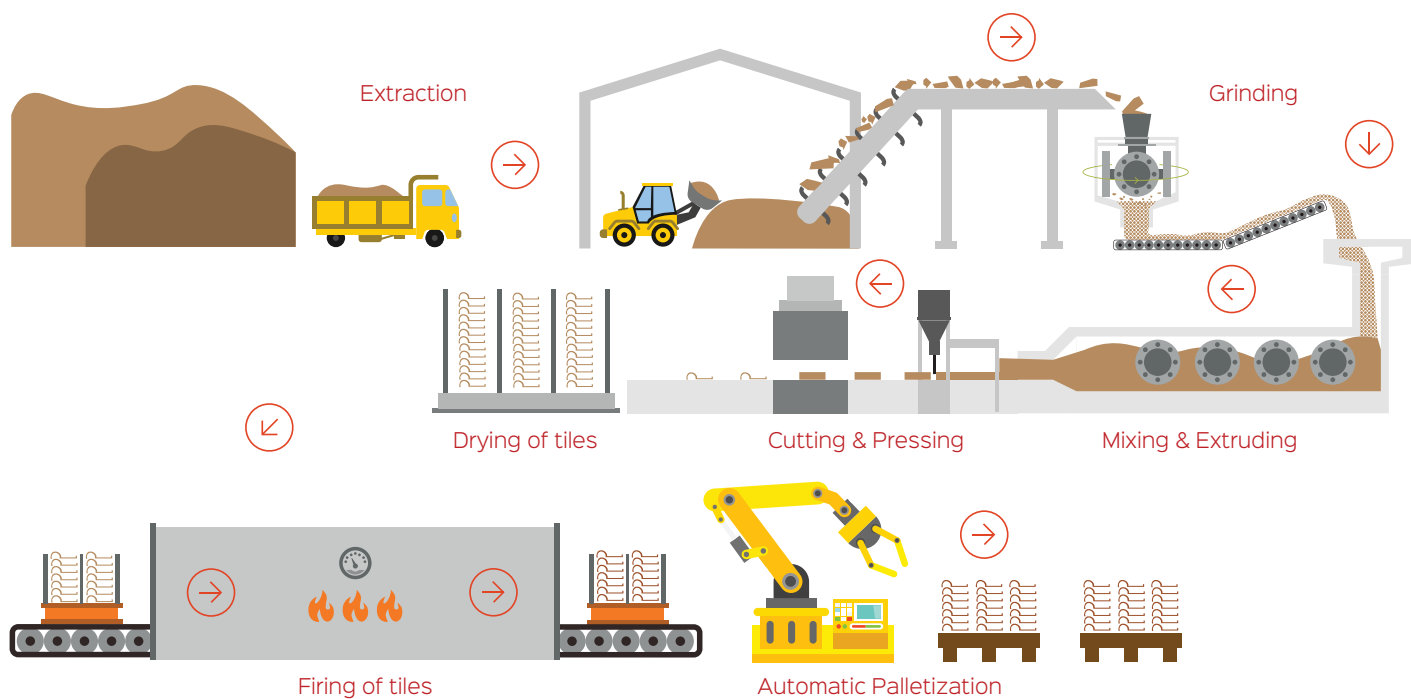
Stringent tests and processes to ensure high quality products

it all starts here in our Kluang factory in Johor, the manufacturing flagship of Terreal in Asia. Following a massive upgrade in 2009, the Kluang plant is capable of producing European quality tiles in terms of finishing, performance, colour stability and consistency along with a host of environmental features. Terreal tiles are naturally produced to ensure no harm is done to the environment. The water used is filtered and all wastes are recycled. In line with those efforts, Terreal has proudly obtained the SIRIM Eco-Label endorsement for its clay roof tiles.

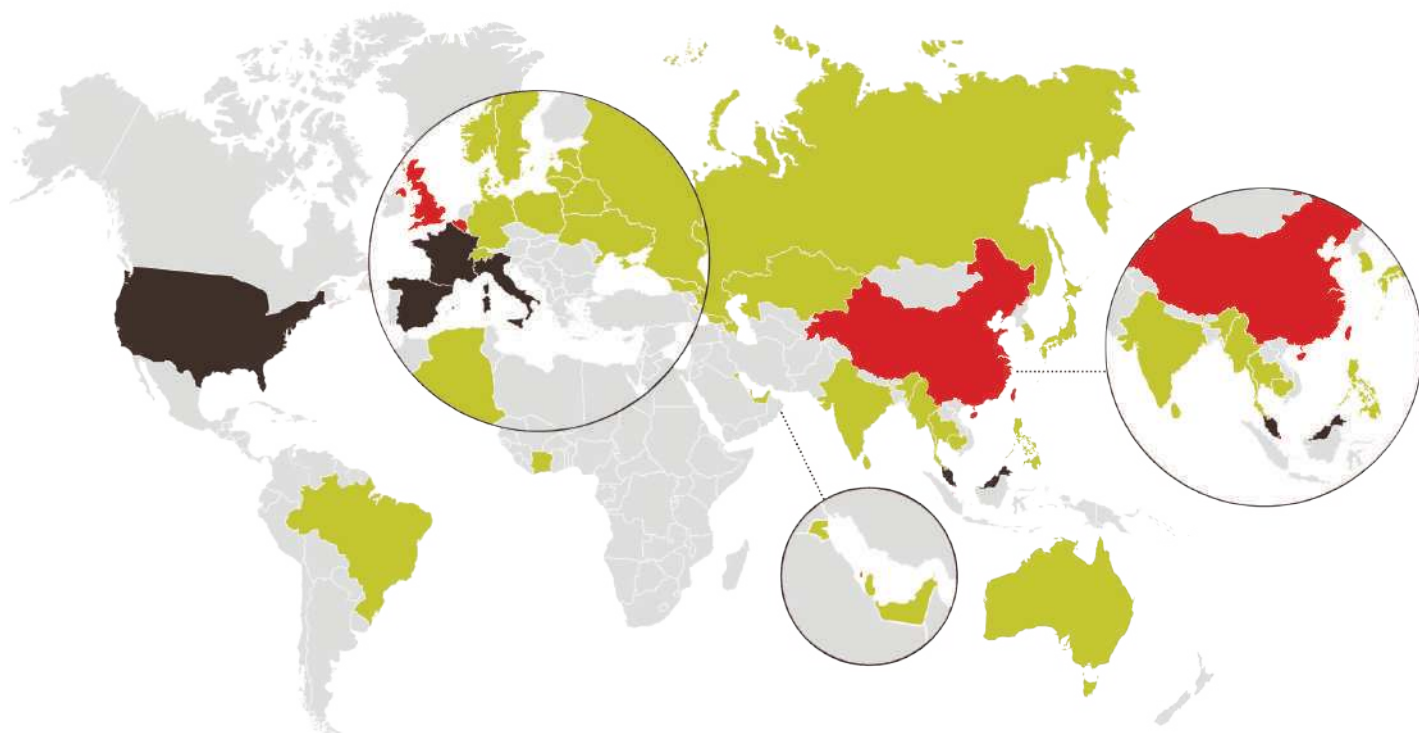
Terreal also obtained the ISO 9001:2008 certification for its customer-oriented Quality Management System. On top of this, the Kluang plant also provides training facilities to support a program launched in 2013 to enhance the skills of roofers. Since then, more than 200 roofing contractors have improved their tiles, accessories and components laying skills on real roof mock-ups. They have also received their installation certificates upon completion of their training.



Fabrication



Our global presence



● Partner-Distributors ● Sales representation ● Industrial presence

HomeValue+

COMPLETE ULTIMATE ROOFING SYSTEM

No matter rain or shine, **HomeValue+** is always here to care for you and Your family, your living spaces and the environment. Featuring Terreal's unique technology that ensures high durability and water-tightness, **HomeValue+** clay roofs are the perfect choice for Malaysian homes. Along with particular attention to single points of the roof, these pitched roofs also offer reflective insulation – all there means while **HomeValue+** shelters you and your family from thunderstorms as well as scorching sunlight. It also provides a cooler and well ventilated environment indoors.



A modern roofing solution that cares for you, your home, and the planet



TERREAL
Clay Roof Tiles



COOLMAX™
Reflective Insulation



GSE INTEGRATION
In-Roof System



FACADE
Sunscreen & Cladding

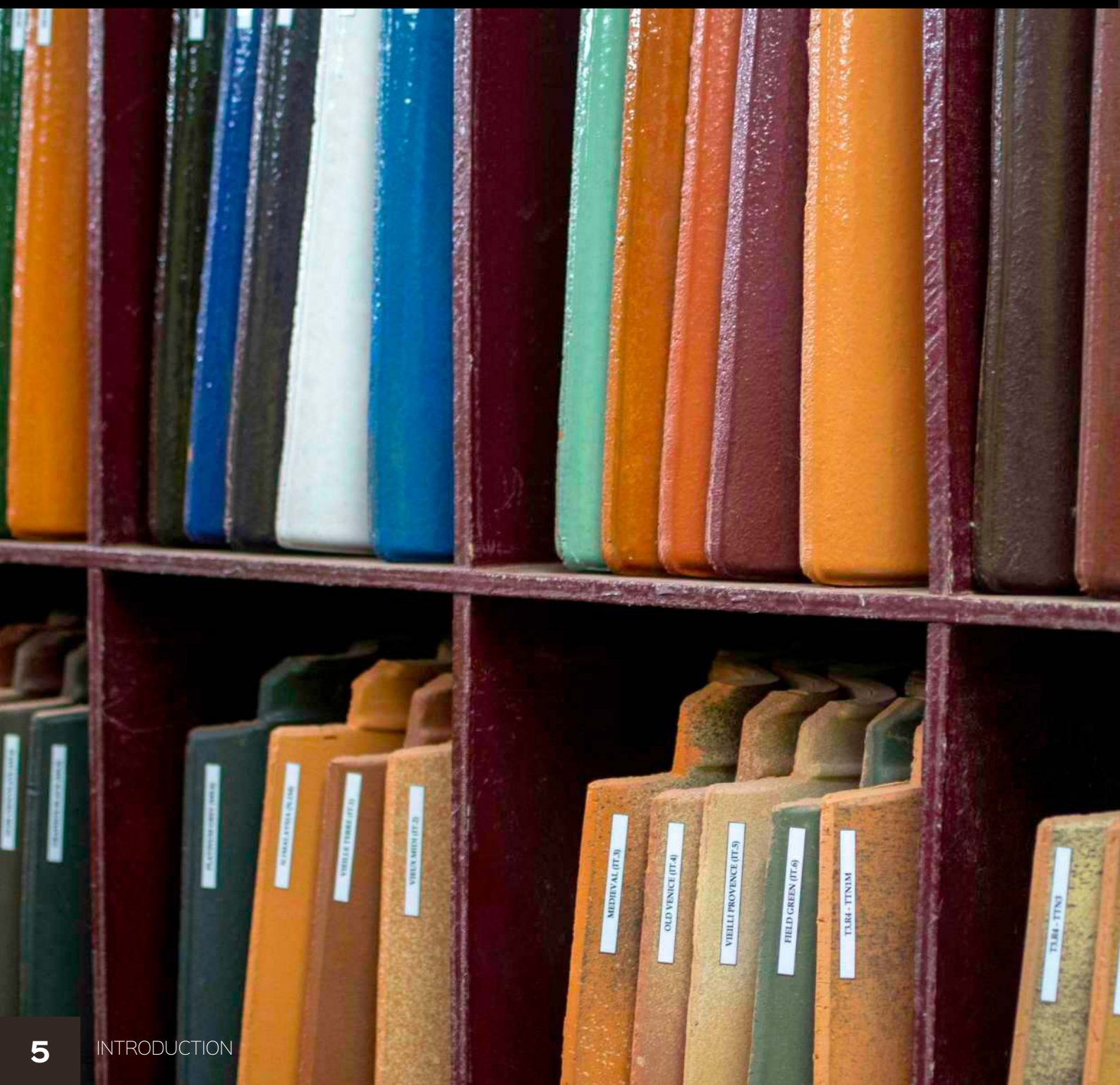


TERREAL COLOURS

Vibrant shades, versatile styles

Colours work wonders in complimenting architecture. With Terreal's vibrant collection of coloured roof tiles, you can now put colours to your roofs via a beautiful selection of stylish hues.

Terreal roof colours last for a lifetime and never fade. Thermally efficient and 100% natural, these colourful tiles are made from natural pigments and materials that are environmentally friendly.



CUSTOM COLOURS

Any colour, any tiles

At Terreal, no matter how unique your palette specifications are, we have the capability to develop custom colours to match your requirements. The possibilities for customization also extend to achieving the textural and surface effects that you desire along with different forms of grooves, contouring and even perforations.

*Customized colours are only available through Minimum Order Quantity.



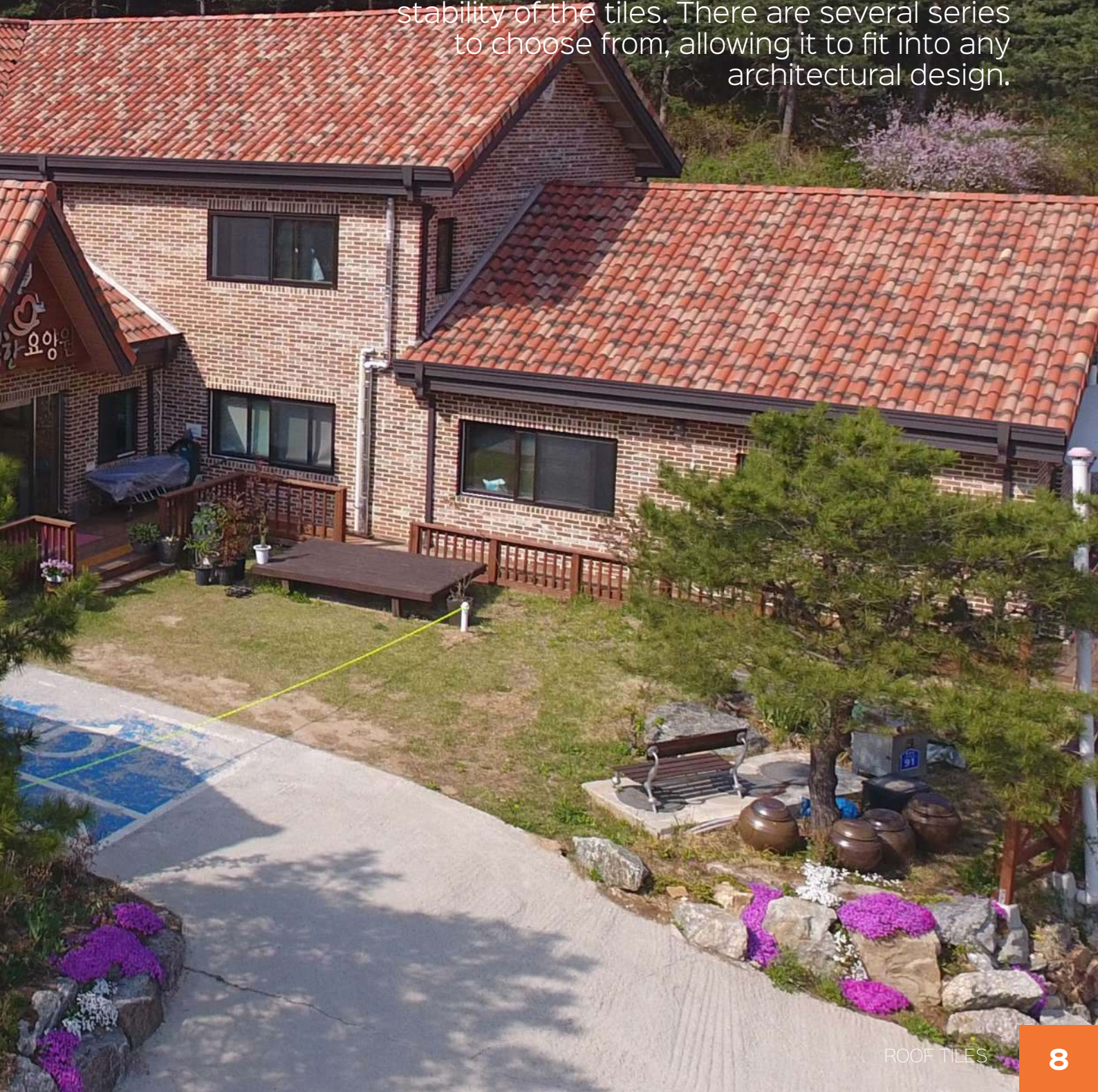
- Chuncheon old folks home, Chuncheon -

Product : Romane Origine Medieval (IT.3)



MEDITERRANEAN PROFILE

With its exclusive profile that exemplifies opulence and luxury, the Mediterranean range of tiles can be laid on lower-pitched roofs : their curved shape and deep interlocking system facilitates the quick draining of rainwater, and also ensure the stability of the tiles. There are several series to choose from, allowing it to fit into any architectural design.





ROMANE ORIGINE : 12 pc / M²

ROMANE ORIGINE



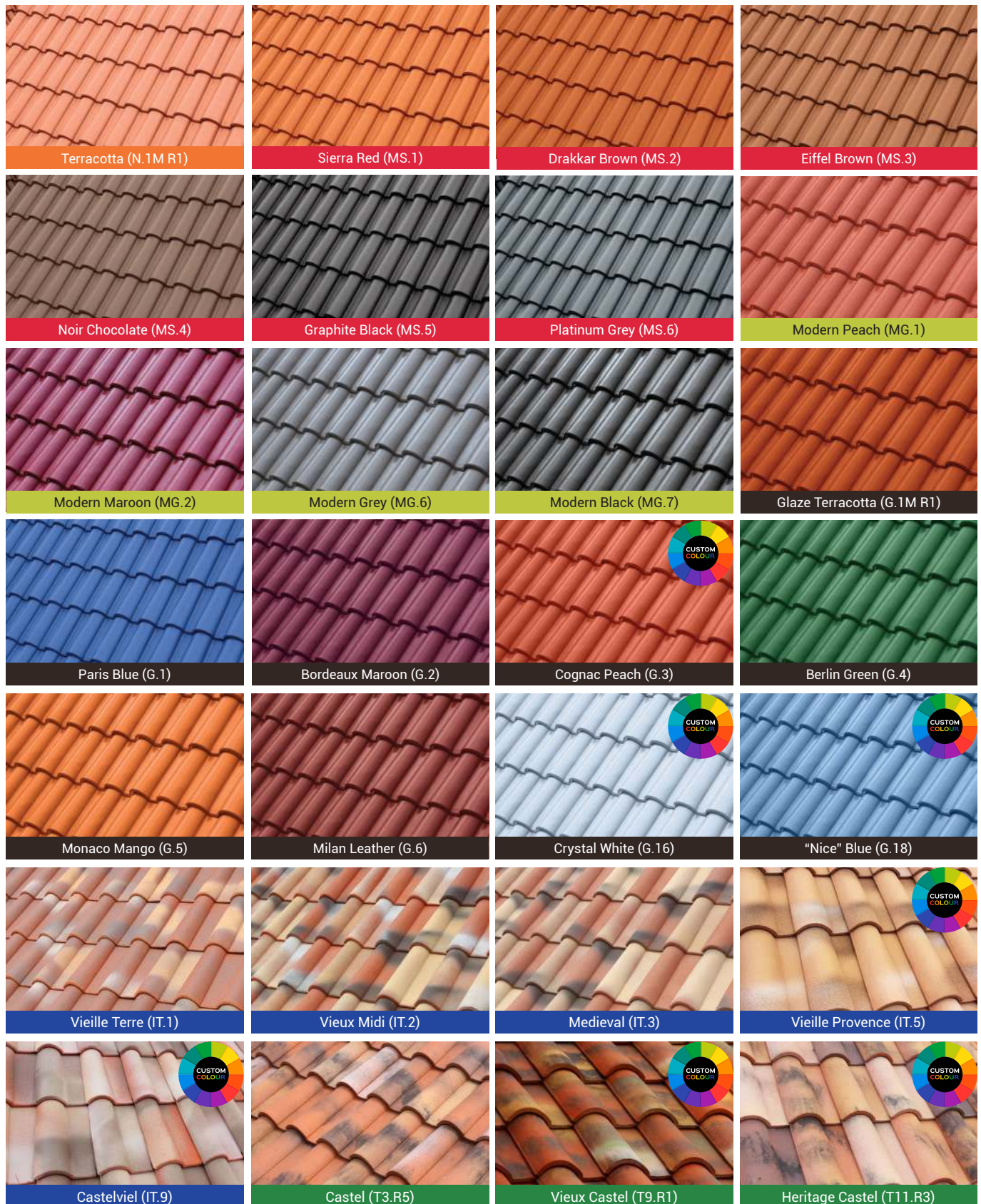
Created more than half a century ago, the Mediterranean profile has just recently been revamped into Romane Origine to benefit from the latest technological advances in design and manufacturing. Found all over southern Europe and Southeast Asia, it is a true classic with proven reliability and easy to install. With its pure lines and powerful streamlined curve, coming in a comprehensive range of colours, it covers traditional homes as well as contemporary constructions. Manufactured in Malaysia, you can be sure of its quality and local adaptability, backed by a unique 10 years warranty.





Dimension	Weight	Batten gauge	Effective width	Tiles per M ²	Weight per M ²	Minimum Pitch	Maximum Span
282 x 428 mm	3.8 kg	368 ± 6 mm	220 mm	12 pcs	45.6 kg	19°	12 m

Colours & Finishing

ROMANE ORIGINE



-  **Natural Tone**
-  **Glaze**
-  **Impressionist**
-  **Minimalist Satin**
-  **Radiant Glossy**
-  **Tropical Tone**

Note : Colour variation is an inherent characteristic of all kind of fired clay products. Colours shown on catalogue may vary from actual product. Natural tones will weather naturally over time.



ROMANE XL : 9.5 pc / M²

ROMANE XL

A new generation of clay tile has been developed with Romane XL, to make the beauty of clay tiles much more affordable, thanks to a large covering capacity of 9.5 pc/m² and an innovative design, optimized for easy and quick installation.

Until now, the usage of clay tiles has often been restricted to the most exclusive high-end properties, due to their smaller coverage and higher installation time. With Romane XL, Terreal creates a new generation of clay tiles that will change the game and foster widespread adoption of clay tiles.



Dimension	Weight	Batten gauge	Effective width	Tiles per M ²	Weight per M ²	Minimum Pitch	Maximum Span
306 x 493 mm	4.5 kg	410 ± 10 mm	250 mm	9.5 pcs	43 kg	19°	9.5 m

Colours & Finishing

ROMANE XL

Natural Tone



Terracotta (N.1M R1)

Radiant Glossy



Glaze Terracotta (G.1M R1)

Impressionist



Vieille Terre (IT.1)



Vieux Midi (IT.2)



Medieval (IT.3)



Vieille Provence (IT.5)



Castelviel (IT.9)

Minimalist Satin



Noir Chocolate (MS.4)



Graphite Black (MS.5)



Platinum Grey (MS.6)



Fast Installation + Cost saving

Due to Romane XL's large coverage area, installation time is greatly reduced as well as the cost in roofing materials such as, roof tiles, battens and screws.

Benefits of the Romane XL

- Fast and easy to install
- Cost efficient on materials
- Double interlocking system provides additional secure fixing and water tightness

Note : Colour variation is an inherent characteristic of all kind of fired clay products. Colours shown on catalogue may vary from actual product. Natural tones will weather naturally over time.







PERANAKAN PROFILE

Marrying modern roofing technology and traditional roofing concepts, the Peranakan series offers a charming range of roof tiles that brings us back to our roots. With their “V” profiles, these roof tiles are also available in beautiful weathered hues.

- Individual Bangalow, Singapore -

Product : Peranakan 8 Heritage Castel (T11.R3)



PERANAKAN 8 : 13 pc / M²

PERANAKAN 8



Peranakan 8 is developed to provide the security and easy-laying inherent to a contemporary model of tile, yet preserving the traditional V-concept. Its innovative features of 8 V tiles in 1 (4 overs and 4 unders), reduces number of joints and cut down installation time. With its marvelous range of weathered tones, it gives a tropical resort charm.



Fast Installation + Cost saving



Dimension	Weight	Batten gauge	Effective width	Tiles per M ²	Weight per M ²	Minimum Pitch	Maximum Span
335 x 348 mm	3.9 kg	273 ± 2 mm	280 mm	13 pcs	51 kg	25°	12 m

Colours & Finishing

PERANAKAN 8



Natural Tone France (P8.N2)



Heritage Castel (T11.R3)



Pinang Antique (P8.P1)



Note : Colour variation is an inherent characteristic of all kind of fired clay products. Colours shown on catalogue may vary from actual product. Natural tones will weather naturally over time.

TERREAL RECOMMENDATIONS : UNDERLAY is required for Peranakan profiles.



PERANAKAN V : 110 pc / M²

PERANAKAN V



In line with historic restoration projects, "Peranakan V" clay roof tile captures the essence of our heritage architecture. With its self-interlocking design, "Peranakan V" is the obvious choice for restoration projects.

Dimension	Weight	Tiles per M ²	Weight per M ²	Maximum Span
110 x 225 mm	0.7 kg	110 pcs	77 kg	12 m

Colours & Finishing

PERANAKAN V



LAYING SYSTEM



BOTTOM TILE



TOP TILE



- Overlapping top tile
- Top tile
- Overlapping bottom tile
- Bottom tile
- Underlay
DRYMAX ENERGY +™)
- Reflective insulation
COOLMAX™)

SECTION VIEW



Note : Colour variation is an inherent characteristic of all kind of fired clay products. Colours shown on catalogue may vary from actual product. Natural tones will weather naturally over time.

TERREAL RECOMMENDATIONS : UNDERLAY is required for Peranakan profiles.



MARSEILLE : 12 ~ 14 pc / M²



MARSEILLE

Cote de Marseille is both elegant and reliable, and has immediately set a new standard among large flat interlocking tiles. Heir to the Volnay Lambert, from which it received the legendary robustness and an excellent watertightness, the Cote de Marseille tile offers a generous 68mm variable gauge and an easy installation in broken bonded.



Dimension	Weight	Batten gauge	Effective width	Tiles per M ²	Weight per M ²	Minimum Pitch	Maximum Span
256 x 436 mm	3.6 kg	320 ~ 370 mm	220 mm	12 ~ 14 pcs	43.2 kg	25°	12 m

Colours & Finishing

MARSEILLE



Natural Tone France



Tudor Brown



Old Burgundy



Note : Colour variation is an inherent characteristic of all kind of fired clay products. Colours shown on catalogue may vary from actual product. Natural tones will weather naturally over time.

TERREAL RECOMMENDATIONS : UNDERLAY is required for Peranakan profiles.



FLAT PROFILE

With its contemporary features, the Flat Profile effectively blends new or renovated buildings with local architecture while contributing to the increase in their real estate value. This series also brings incomparable rhythm and volume to roofs, thanks to their slight chamber which satisfies most requirements of modern architectural projects.

- ZEN 88, Ipoh -

Architect : A3 PROJECTS
Product : ZEN Tiles Series CT.1



VOLYNAY PV : 10 pc / M²



VOLNAY PV

Volnay PV is both elegant and reliable, and has set a new standard among large flat interlocking tiles. Heir to the Volnay Lambert, from which it received the legendary robustness and an excellent watertightness, the Volnay PV tile offers a generous 68mm variable gauge and an easy installation in broken bonded. Its fine and elegant bevelled nose and its graceful lines enhance the modern and contemporary “feel” of roofs it covers. Volnay PV comes in six rich and authentic colours.



Dimension	Weight	Batten gauge	Effective width	Tiles per M ²	Weight per M ²	Minimum Pitch	Maximum Span
293 x 490 mm	4.5 kg	340 ~ 408 mm	250 mm	10 pcs	45 kg	25°	10 m

Colours & Finishing

VOLNAY PV



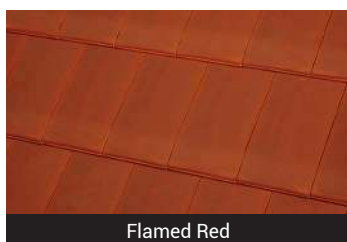
Dark Slate



Tudor Brown



Old Burgundy



Flamed Red



Champagne Sanded



Vieilli Lauze



Note : Colour variation is an inherent characteristic of all kind of fired clay products. Colours shown on catalogue may vary from actual product. Natural tones will weather naturally over time.



ZEN TILE SERIES : 10 pc / M²



ZEN TILE SERIES

Produced with an innovative machine-press system, Zen Tile Series has superior strength when compared to conventional flat tiles, that enables less breakage and chipping during transport and installation. It also presents unique Double Interlocking and Double Overlapping System, Double Water Channel with Weather Rib at its top, and a Double Elevated Nail Hole for perfect fixing. The combination of those features, together with use of our CoolMax™ insulation system, will ensure perfect watertightness under tropical weather.



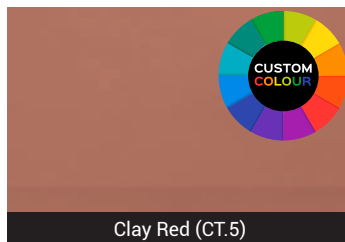
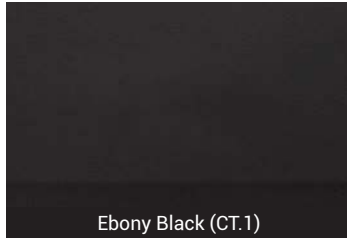
Dimension	Weight	Batten gauge	Effective width	Tiles per M ²	Weight per M ²	Minimum Pitch	Maximum Span
330 x 420 mm	4.2 - 4.3 kg	260 mm	380 mm	10 pcs	45 kg	*20°	10 m

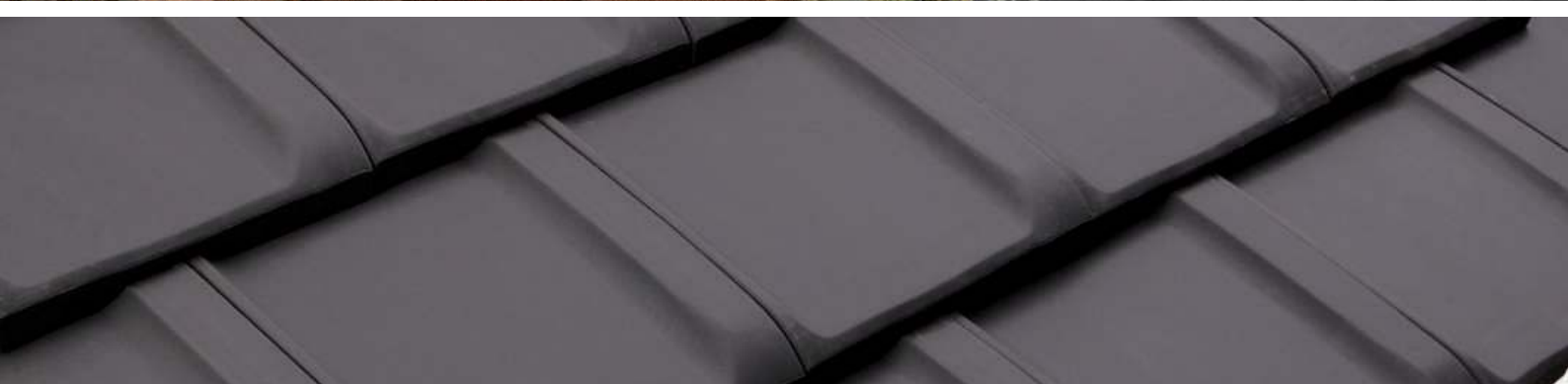
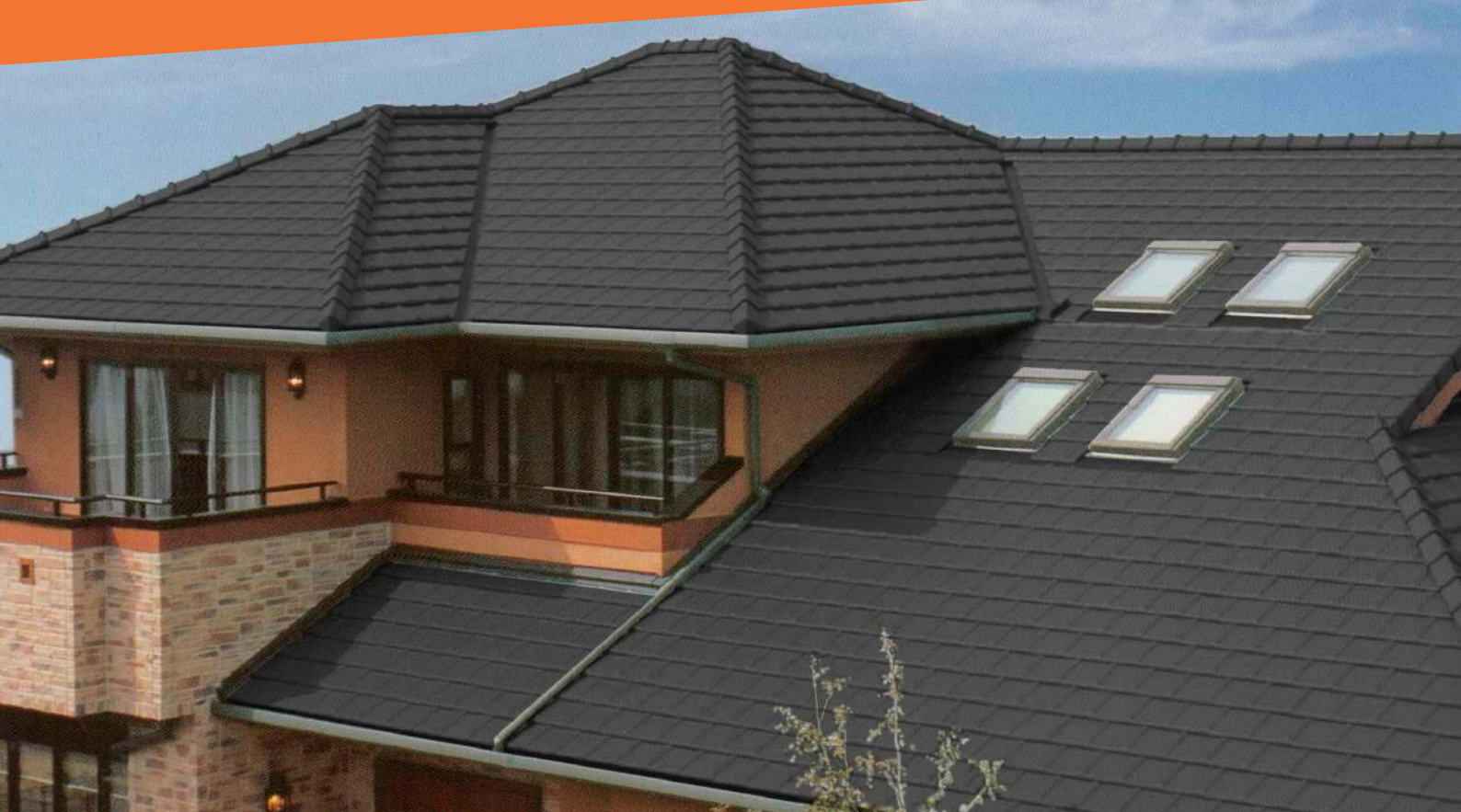
* Roof Pitch of 10° can be achieved with usage of DRYMAX ENERGY+™ (Waterproof Membrane)

* The use of Steel Batten is recommended for the installation of ZEN Tiles Series.

Colours & Finishing

ZEN TILE SERIES





ZEN TILE SERIES : 11.5 pc / M²



E-LEGANCE

With its contemporary features, the E-series E-legance tiles effectively blends new or renovated buildings while contributing to the overall performance of the roof.



Dimension	Weight	Batten gauge	Effective width	Tiles per M ²	Weight per M ²	Minimum Pitch	Maximum Span
355 x 341 mm	3.8 kg	285 mm	305 mm	11.5 pcs	43.7 kg	*20°	10 m

Colours & Finishing

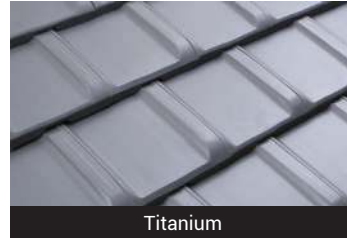
E-LEGANCE



Midnight



Leather



Titanium

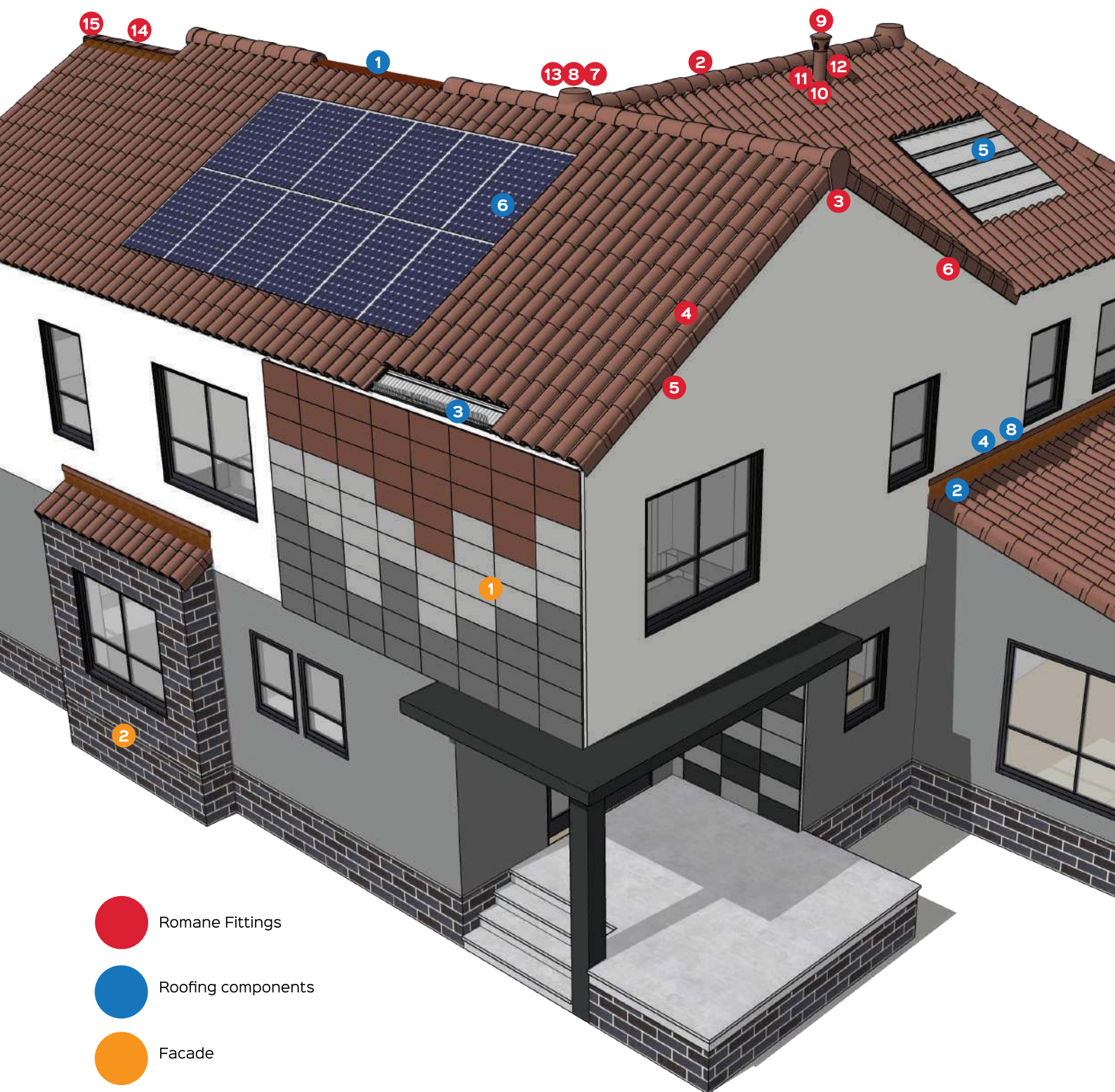


Terracotta



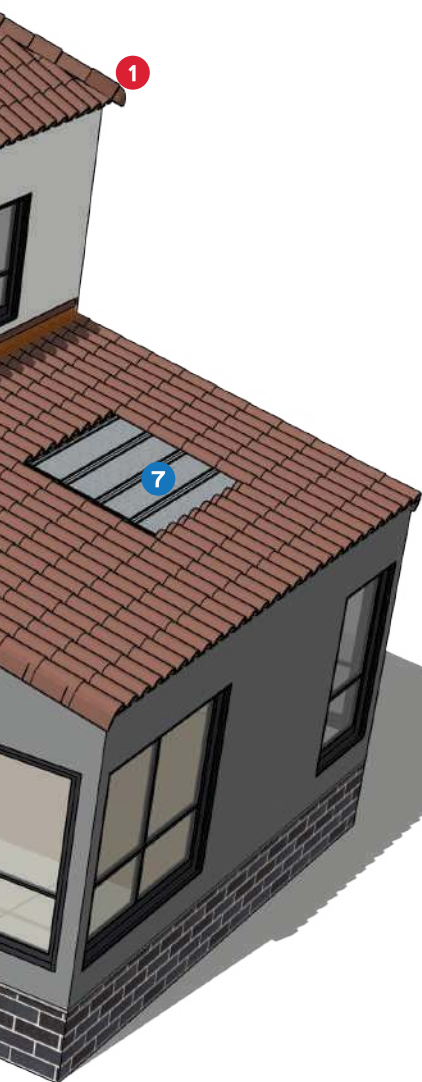
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Accessories for Mediterranean Profile



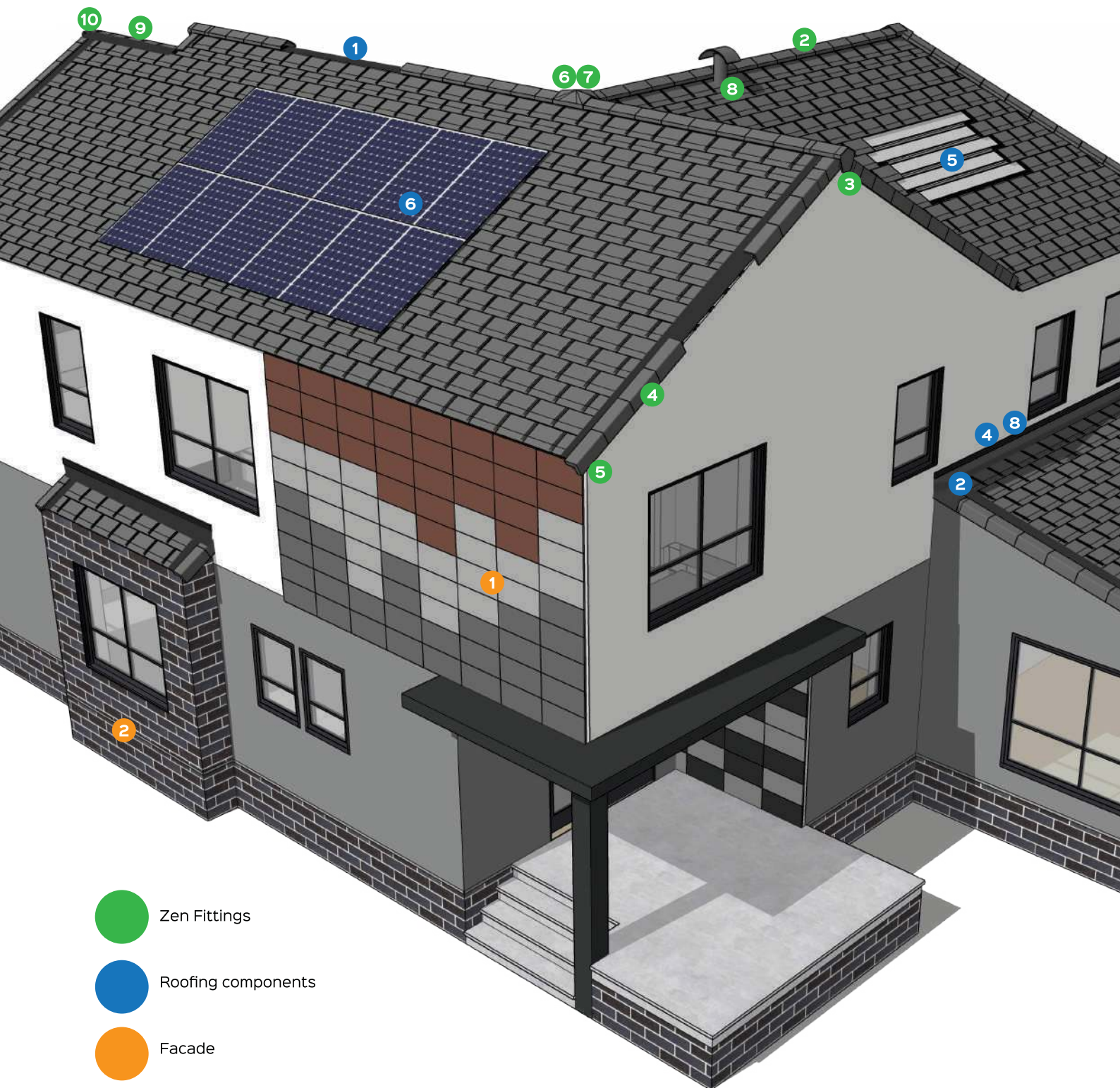
ACCESSORIES TO ENHANCE YOUR ROOF PROFILES

To enhance the performance of your roof, Terreal offers a variety of features and complements that can be easily installed along with different roof profiles, ensuring that your home is perfect in terms of beauty and functionality.



- | | | | | | | | |
|---|--|---|-----|----|--|---|------|
| 1 | | Ridge / Hip End | A1 | 9 | | Lantern
ø 160 mm | A14 |
| 2 | | Ridge / Hip Tile
(2.5 pcs/m) | A3 | 10 | | Socket Tile
ø 150 mm | A15 |
| 3 | | Ridge End Cap (U) | A6 | 11 | | Socket Sleeve | |
| 4 | | Half Tile
(2.7 pcs/m) | A7H | 12 | | Extension Pipe | SA2 |
| 5 | | Verge Tile Right
(2.7 pcs/m) | A8 | 13 | | Elbow | A22 |
| 6 | | Verge Tile Left
(2.7 pcs/m) | A9 | 14 | | Monopitch Tiles (U) | A26 |
| 7 | | 3 Way Apex | A12 | 15 | | Monopitch End | A28U |
| 8 | | 4 Way Apex | A13 | | | Clear Tiles | |
| 1 | | Terreal Dry Fix™
(Solution to ridge and hip) | | 6 | | GSE Integration™
(Solar System) | |
| 2 | | Terreal Dry Flash Premium™
(Abutment) | | 7 | | Terreal DryMax Energy +™
(Waterproof Membrane) | |
| 3 | | Terreal Bird Stop | | 8 | | Terreal SealMax™
To be used for any bonding-sealing
work, such as gutter, valleys, lantern,
verge, wall flashing, cut-tiles. | |
| 4 | | Terreal Flash Strip | | 1 | | Terreal Facade
(Wallcladding & Sunscreen) | |
| 5 | | Terreal CoolMax™
(Reflective Insulation) | | 2 | | Terreal Facade
(Bricks & Brick slips) | |

Accessories for Flat Profile

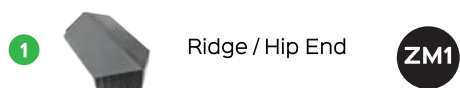
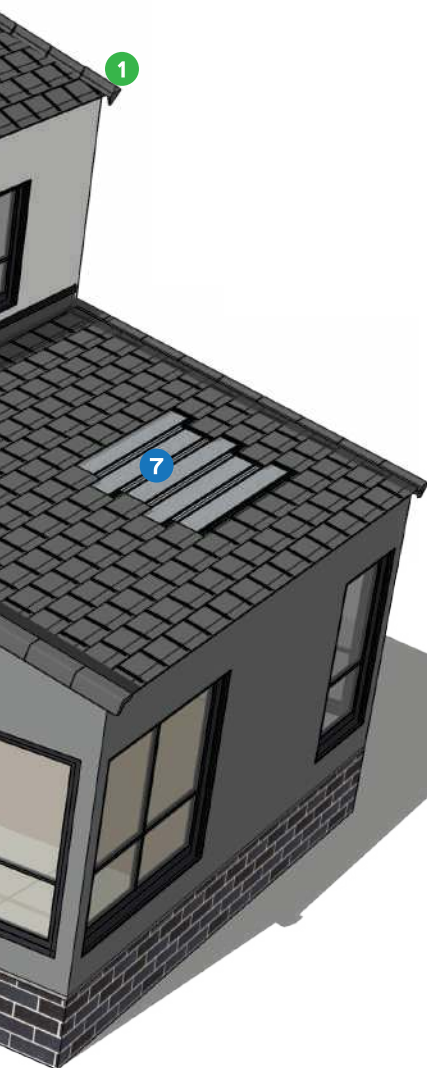




TERREAL

CONSTRUCTIVE SOLUTIONS

FROM A-Z, WE GOT YOU COVERED !



Ridge / Hip End

ZM1



Ridge / Hip Tile
(2.5 pcs/m)

ZM3



Ridge End Cap (U)

ZM6



Verge Tile (U)
(2.5 pcs/m)

ZM8



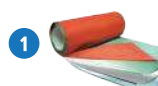
Verge End (U)

ZM9



3 Way Apex

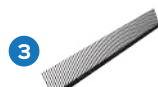
ZM12



Terreal Dry Fix™
(Solution to ridge and hip)



Terreal Dry Flash Premium™
(Abutment)



Terreal Bird Stop



Terreal Flash Strip



Terreal CoolMax™
(Reflective Insulation)



4 Way Apex

ZM13



Socket Tile
+ V-pipe Set

ZM15



Monopitch Tiles (U)

SL25



Monopitch End (U)

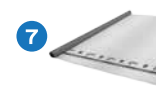
SL26U



Zen Clear Tiles



GSE Integration™
(Solar System)



Terreal DryMax Energy +™
(Waterproof Membrane)



Terreal SealMax™
To be used for any bonding-sealing
work, such as gutter, valleys, lantern,
verge, wall flashing, cut-tiles.



Terreal Facade
(Wallcladding & Sunscreen)



Terreal Facade
(Bricks & Brick slips)

*Terreal Bird Stop is not needed for flat tiles.

TERREAL DRY FIX™



GENERAL

Terreal Dry Fix™ is a versatile, self adhesive tape, consist of 0.064mm reinforced aluminum foil backed with a 1.45mm weatherproof self adhesive compound which is protected by a silicone release film.

SIZE : Per roll of 300mm (W) x 10 m (L)

APPLICATION

The surface on which Terreal Dry Fix™ is to be applied must be smooth and free of irregularities. Damaged, dirty or dusty surface must be repaired and cleaned before application. If an overlapping is required, a minimum of 55mm of Terreal Dry Fix™ should be used.



STEP 1

Cut the tiles along the hip tree with a gap about 5mm.



STEP 2

Choose a matching finishing colour and unroll the required length.



STEP 3

Remove the release film and place in position.



STEP 4

Press to the profile of the tiles and make sure all gaps are sealed.



STEP 5

Fixed the hip tiles in place and nail to the hip tree. Make sure the membrane is not exposed and hidden under the hip tiles.

COLOURS



TERREAL DRY FIX PREMIUM™

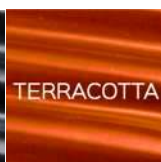


GENERAL

Thanks to its aluminum and ventilated fabric body, the Terreal Dry Fix Premium™ is highly durable, weather resistant, and provides ventilation on roof ridges. The pre-determined bending lines and the wide butyl adhesive makes it easier to bend at walls and ensures water tightness against rain.

SIZE : Per roll of 310mm (W) x 10m (L)

COLOURS



TERREAL DRY FLASH PREMIUM™



GENERAL

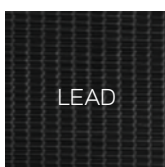
Terreal Dry Flash™ is a perfect solution for abutment, providing better and neat finishing. Terreal Dry Flash™ is an aluminium product with high degree of flexibility thanks to continuous corrugation and multiple pre-fabricated bending lines.

SIZE : Per roll of 300mm (W) x 5 m (L)

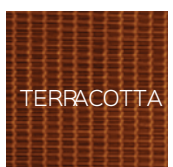
APPLICATION

The surface has to be clean and dry before application.

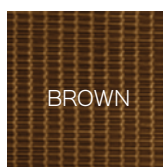
COLOURS



LEAD



TERRACOTTA



BROWN



STEP 1

Cut the Dry Flash (wall width + 4cm) bend it at the pre-determined bending line and press it against the wall. Bending line should be at the contact line of the roof with the wall.



STEP 2

Bend the 2 parts on both side away from the wall. Remove the protective foil from the upper adhesive strip and fix the Dry Flash horizontal on the wall.



STEP 3

Remove the protective foil from the lower adhesive strip and form it on the tiles.



STEP 4

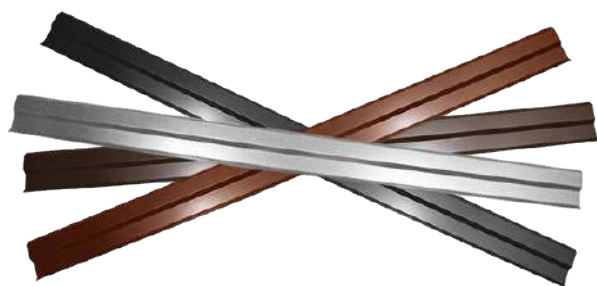
Install terreal Flash Strip over the top edge of Dry Flash and fasten the Strip with rust resistant screw or nail.



STEP 5

The upper seam must be sealed with sealing compound.

TERREAL FLASH STRIP

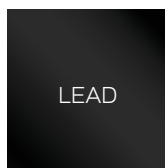


GENERAL

Terreal Flash Strip is made of clean colour bond zincalume. It is installed over the top edge of Dry Flash. This is to further secure the Dry Flash to the wall in case of paint peeling in the future.

SIZE : Per pc 1m (W) x 80mm (h)

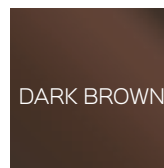
COLOURS



LEAD



TERRACOTTA



DARK BROWN



GULL GREY



TERREAL SeaLMax



GENERAL

A multi-purpose, non-staining sealant based on hybrid silyl-modified polyether technology, offering excellent strength and adhesion characteristics. SeaLMax is suitable for use over a wide range of industrial bonding and sealing applications. It is solvent and isocyanate-free and may be painted over with most paints.

- Hybrid Silyl-modified Polyether technology
- High Bonding Strength
- Non-staining & Crack Resistant
- Acid, Isocyanate & Solvent-Free
- Excellent UV & Weather Resistance
- Paintable, Odourless & Fast-curing
- Suitable for Indoor & Outdoor Use
- Bubble-free Curing
- Primerless adhesion on many substrates
- Can be applied to damp surface

SURFACE PREPARATION

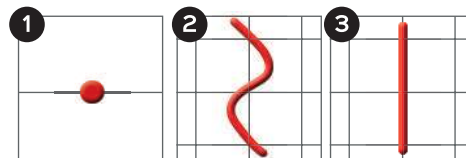
- Surfaces must be clean, dry and free from dust, grease, oil, detergents or loose particles
- Loose or flaking paint and poorly adhering particles must be removed before application

CARTRIDGE PREPARATION

- Cut cartridge above the thread
- Screw nozzle onto cartridge
- Cut nozzle at a 45° angle depending on required bead size
- Insert cartridge into caulking gun

APPLICATION

- Repair surface defects before application
- Apply in a wavelike pattern for large and wide areas
- Apply in a straight line for narrow areas

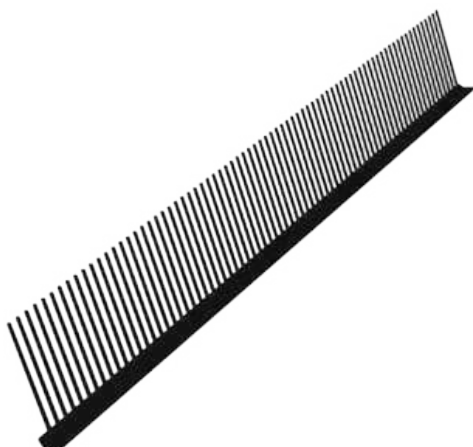


- Clean off excess sealant immediately with M.E.K or Toluene

BONDING

- Bonded objects should be firmly pressed together immediately after application
- If necessary, repositioning of objects is possible within the first 5 minutes
- Full-curing is achieved within 48 hours
- Heavy objects should be temporarily supported till fully cured
- For optimal adhesion, at least one surface should be porous or absorbent

TERREAL BIRD STOP



GENERAL

Allow airflow and prevents the entry of birds and vermin into the batten cavity.

Advantages

- Protects against entry of birds, vermin and debris
- Comb adjusts to suit any profile of tile
- Fixing slots allow easy fixing
- Lightweight and durable

SIZE : Per pc 1m (W)

COLOURS



TERREAL DRYMAX ENERGY+™

WATERPROOF MEMBRANE



GENERAL

DRYMAX ENERGY+™ is a non-woven breathable membrane using latest state of the art micro-perforation technology, designed to keep both water and air out, yet allowing vapor to flow out.

ADVANTAGES

- Fully waterproof : W1
- Fully air-tight : Windbreak
- High water vapour permeable: $S_d < 0.07 \text{ m}$
- CE marking as Vapour control layer

SIZE : Per roll of 1.5m (W) x 50m (L)



TERREAL ROOF TILES + DRYMAX ENERGY+™

SOLUTION FOR LOW & HIGH PITCH MODERN ROOFS. PERFECT FOR WATERPROOFING & CONTEMPORARY ARCHITECTURE.

TERREAL roof tiles & DRYMAX ENERGY+™ incorporate an innovative low & high pitch roofing system that truly elevates the performance of modern roofs. This system allows roof pitch to be low as 10 degrees with perfect water tightness!

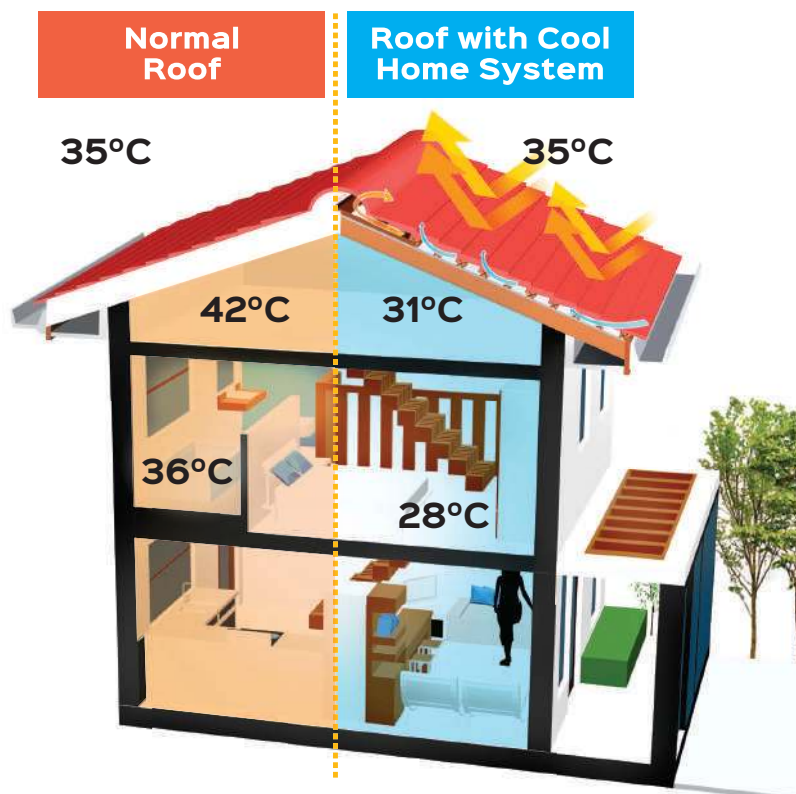
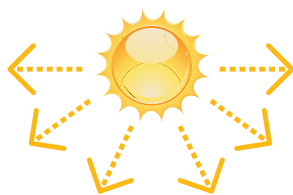


The Cool Home system (CoolMax + Terreal Roofing)

OUR COMMITMENT, YOUR THERMAL COMFORT

The sun heats the roof and, through it, the attic and ceiling, causing temperatures to rise inside the residence. While roof tiles and insulation help to reduce such heat gain, no insulation material works as well as COOLMAX™. This is because it not only reduces heat gain during the day but unlike mineral or glass wool, also permits heat dissipation during the night, which makes air-conditioning much more energy efficient and the inside environment much more cooling.

TERREAL clay roof tiles reduce heat absorption due to low conductivity. With selected glazed finish, the tiles will increase heat reflection (higher SRI). All these results in natural ventilation which allows better air circulation. By combining TERREAL clay roof tiles and COOLMAX™, TERREAL provided a truly unique Cool Home System, ensuring that your roof delivers perfect aesthetics, uncompromising water tightness and advanced thermal comfort.



Key Benefits



Advanced Thermal Performance
Reflects up to 97% radiation heat.



No Health Hazard Fiber Free
Anti bacterial, anti fungal, and non-asthmatic. Poses no health and safety risks.



3 In 1 Protection
Provides a protective insulation barrier, radiant barrier and waterproofing membrane.



Easy Installation
No wire mesh, no additional protective film, light weight, fast and simple installation.



Fire Retardant
Achieved "class 0" classification and all international standards.



Energy Saving, Cost Saving
Reduces cost of energy consumption on thermal comfort such as air-conditioning.



REFLECTIVE INSULATION



CPM5 Net (Triplex FR Net)

ROLL SIZE: 1.2 m (W) x 30 m (L) x 9 mm (T)
COVERAGE: 36 sqm

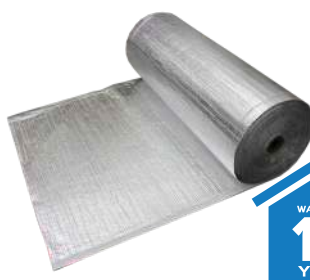
Thermo-cellular, thermal break reflective insulation 9 mm thick, consists of Two fire retardant small air bubbles covering fire retardant XPE foam. The bubbles are made with reflective high resistance premium pure aluminium surfaces, consisting of extra low Emissivity (0.02 to 0.04 for each reflective surface) with a reinforced bi-directional fiber net.



CPS5 Net (Select 80 FR Net)

ROLL SIZE: 1.2 m (W) x 30 m (L) x 8 mm (T)
COVERAGE: 36 sqm

Thermo-cellular reflective insulation 8 mm thick, consists of fire retardant large air bubbles and two reflective high resistance premium pure aluminium surfaces, consisting of extra low Emissivity (0.02 to 0.04 for each reflective surface) with a reinforced bi-directional fiber net.



CP3 Net (Select 40+ FR Net)

ROLL SIZE: 1.2 m (W) x 50 m (L) x 4 mm (T)
COVERAGE: 60 sqm

Thermo-cellular reflective insulation 4 mm thick, consists of fire retardant small air bubbles and two reflective high resistance premium pure aluminium surfaces, consisting of extra low Emissivity (0.02 to 0.04 for each reflective surface) with a reinforced bi-directional fiber net.



CP3 (Select 40+ FR)

ROLL SIZE: 1.2 m (W) x 60 m (L) x 4 mm (T)
COVERAGE: 72 sqm

Thermo-cellular reflective insulation 4 mm thick, consists of fire retardant small air bubbles and two reflective high resistance premium pure aluminium surfaces, with low Emissivity. (0.02 to 0.04 for each reflective surface)



RADIANT BARRIER



CF2A-FR (MS AWA K750)

ROLL SIZE: 1.22 m (W) x 60 m (L)
COVERAGE: 73.2 sqm

Five layers laminate made up of double sided reflective material (aluminium), bonded to reinforce high density polyethylene woven fabric by special tie layer bonding material.



CF2-FR (FRAM2)

ROLL SIZE: 1.25 m (W) x 48 m (L)
COVERAGE: 60 sqm

Five layers laminate made up of double sided reflective material (aluminium & metalized), bonded to reinforce high density polyethylene woven fabric by special tie layer bonding material.



CN2-FR (LFRAM2)

ROLL SIZE: 1.25 m (W) x 48 m (L)
COVERAGE: 60 sqm

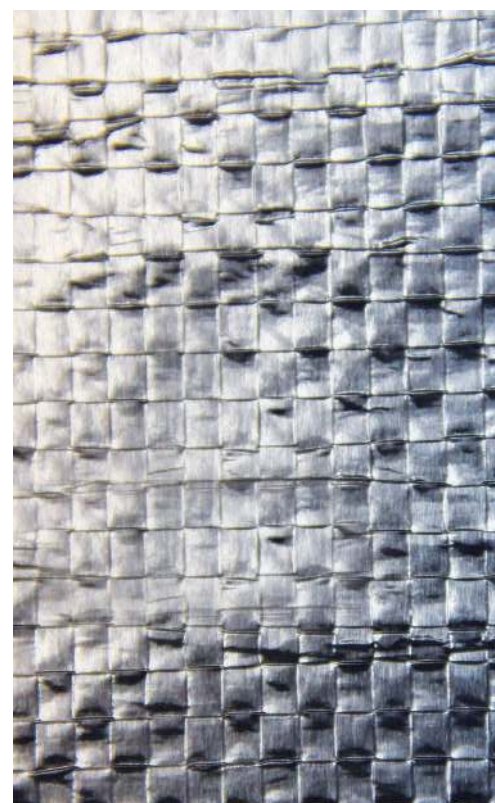
Five layers laminate made up of double sided reflective material (aluminium & metalized) bonded to reinforce high density polyethylene Leno Fabric with special FR polymer bonding material.



CF1-FR (FRAL 1)

ROLL SIZE: 1.25 m (W) x 48 m (L)
COVERAGE: 60 sqm

Three layers laminate made up of a single sided reflective aluminium bonded to reinforce high density polyethylene woven fabric with special fire retardant material.



NEW PRODUCT

PHOTOVOLTAIC

GSE **IN-ROOF SYSTEM**TM

In-Roof Integrated PV system for traditional Photovoltaic Panels

Simple, Quick, Aesthetic, Lightweight,
Waterproof and Inexpensive



**"Fits 95%
of the PV Modules
on the Market"**

PHOTOVOLTAIC

Developed by installers for installers, the **GSE Integration Kit** offers sizeable advantages :

- Easy to install
- Quick to mount : installation time is very valuable to professional installers and we kept that in mind when designing our kit (a 3 to 5kW System installed in 6 hours)
- Lightweight and easy to transport
- Completely Waterproof : ensures a complete watertightness of the PV System
- Flexible : achieve any desired configuration type (landscape, portrait, U-Shape, Pyramid etc), on any roof type
- Shock Resistant
- Climate Resistant (from -30°C to 100°C)
- Fits most existing PV modules
- 100% Recyclable
- Inexpensive : GSE integration kit is to date the most cost efficient In-Roof PV System on the market, making it ideal for roof retrofits and new construction.



TECHNICAL SPECS

Available Sizes

Designation	HEIGHT (mm)		WIDTH (mm)	
PORTRAIT PLATES	from	to	from	to
Plate 1640 / 992	1600	1680	983	993
Plate 1640 / 1001	1600	1680	992	1002
Plate 1559 / 1046	1535	1615	1037	1047
Plate 1575 / 1053	1535	1615	1044	1054
Plate 1575 / 1082	1535	1615	1073	1083
Plate 1580 / 808	1540	1620	798	809
LANDSCAPE PLATES	from	to	from	to
Plate 1640 / 990 - 1001	952	1032	1632	1641
Plate 1650 / 990 - 1001	952	1032	1642	1651
Plate 1660 / 990 - 1001	952	1032	1652	1661
Plate 1670 / 990 - 1001	952	1032	1662	1671
Plate 1675 / 990 - 1001	952	1032	1667	1676
Plate 1680 / 990 - 1001	952	1032	1672	1681
Plate 1575 / 1082	1042	1122	1567	1576
Plate 1559 / 1046	1046	1122	1551	1560
Plate 1580 / 808	768	848	1572	1581

- Color: SILVER / BLACK (100% Recyclable)
- Material: PP - Aluminium - Stainless Steel (100% Recyclable)
- Temperature Range: -30°C to 100°C (Vicat Softening Point: 148°C)
- Slope: 12° to 50°
- Weight: 2 to 3 kg
- Liability insurance trading and product: Liability insurance - CHUBB
- Guarantee insurance: Product 10 year guarantee insurance EPERS - SMABTP
- CEIAB: Ref. 248-SY CEIAB 2012 for all roofs
- CSTB TEST: Waterproofing and wind resistance 100 % conclusive report : EN-CAPE 16.014C-VO
Accelerated ageing EMI 13-26044709
Resistance to wind load
NF EN 12179 - report CLC14-26052298
STRESS /WATERPROOFING - Report N°MRF 1526056677-1
STRESS TEST - Report N° LNE P154794
- CSTB CERTIFICATIONS: ATEC N°21/16-57validated
- ETN BT130003 (Alpes contrôle): Validated modules for french market (List available on our website)
- Fire tests exposure: Compliance BROOF T1, T3, T4
- Certisolis: Mechanical loading tests NF61730 and NF61215 report 20131024-005 & report 20140708-001
Mechanical and climatic validation report 20120903-003
- BBA: MCS 12 BBA 0156 - confirmed for all modules

OUR TESTS & CERTIFICATIONS



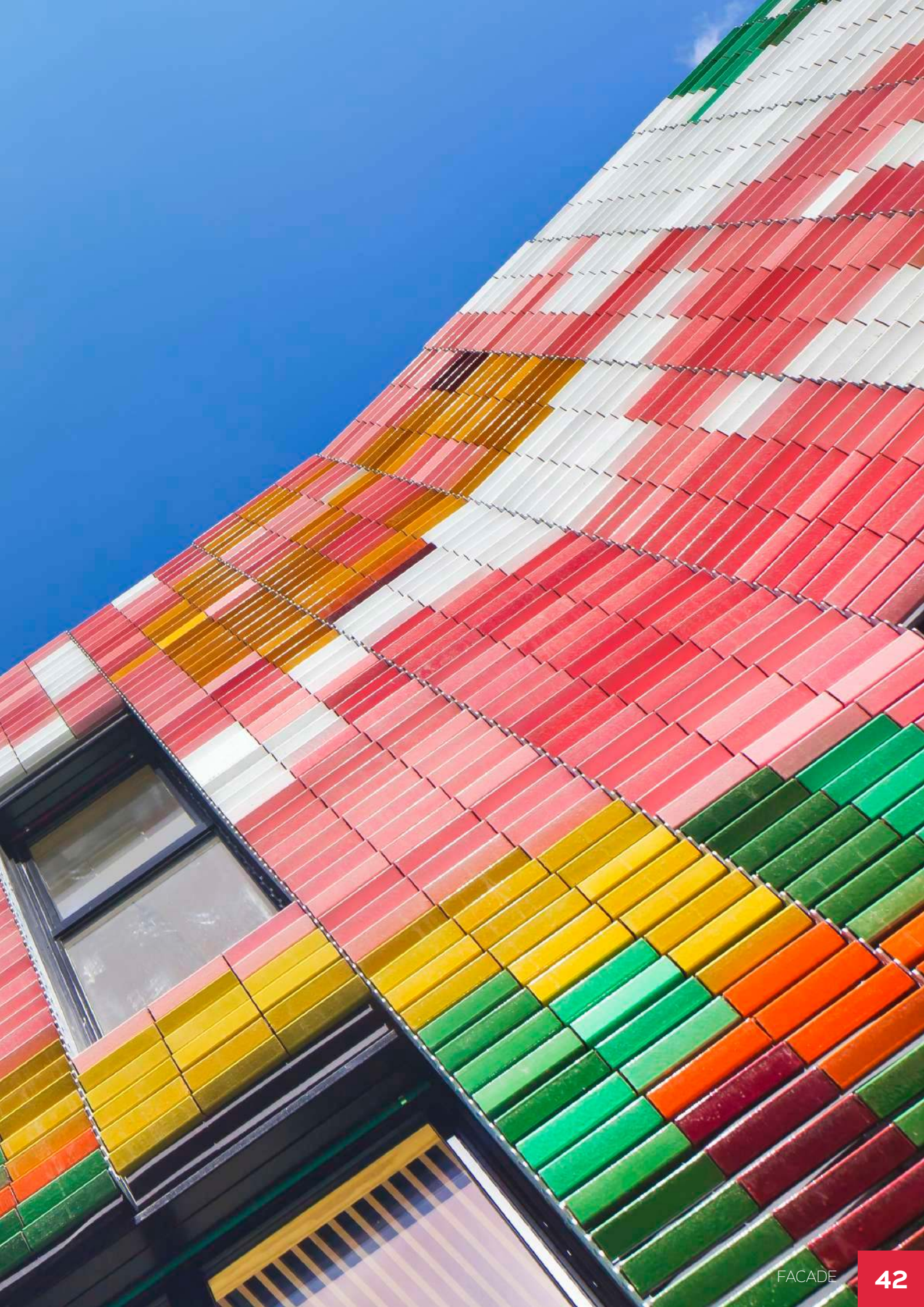
FACADE SOLUTIONS

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.


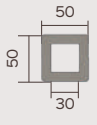

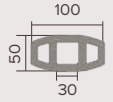


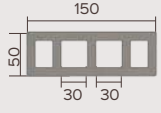


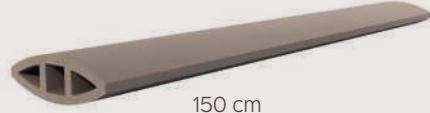

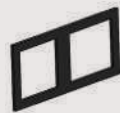
As a true showcase of the building, the façade also represents a key element in its energy efficiency. With either ventilated or direct wall cladding, sunscreens or wall facing, Terreal Façade offers an extensive range of innovative solutions used to cover or insulate all types of buildings.

- Frémicourt Nursery, Paris, France -

Architect : Périphériques Architects
Product : Autan® Custom Glazed Colours



SUNSCREEN PRODUCT GUIDE

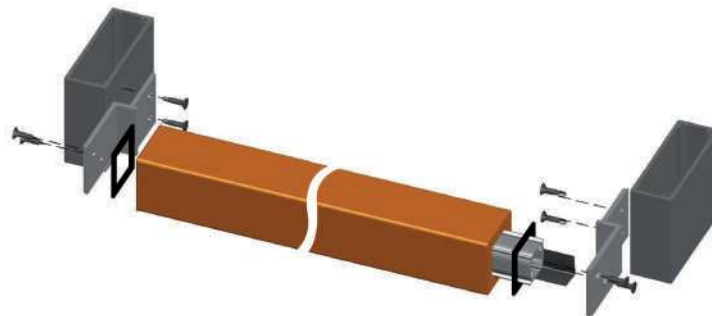
	MODULE MM	MAXIMUM LENGH CM	FIXING ACCESSORIES	
AUTAN®		 31 cm	 Aluminum profile cover	 Aluminum tubes
AUTAN® XL		 150 cm	 Fixing screws	 Mounting screws
HARMATTAN®		 31 cm	 End plates Autan®	 End plates Zonda® XL 15
ZONDA® XL 10		 150 cm	 End plates Zonda® XL 10 and Harmattan®	 Stabilizing device
ZONDA® XL 15		 150 cm	 Profile	 EPDM Zonda® XL 15
SHAMAL® XL 15		 150 cm	 EPDM Autan®	 90° Inox bracket
SHAMAL® XL 20		 150 cm	 EPDM Zonda® XL10 and Harmattan®	 BSLA09/BSLA10 (anodisé) Platine Shamal® XL
			 BSLA02 / BSLA04 (anodisé) Platine de fixation Zonda® XL 15	 BSLI04 Interface EPDM Shamal® XL 20
			 BSLI02 Interface EPDM Zonda® XL 15	



FIXING SYSTEM

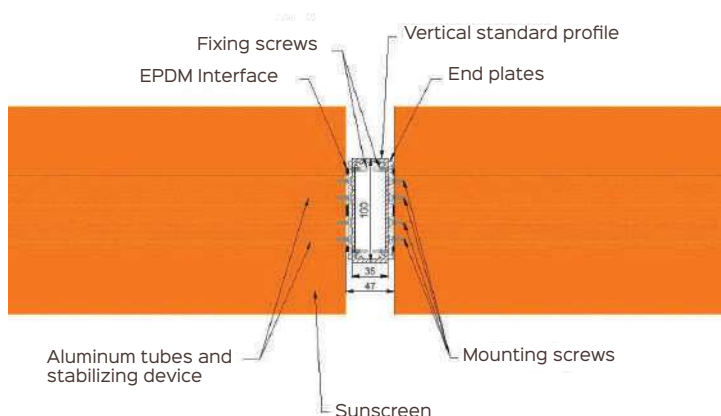
TERREAL sunscreen system is easily assembled on site and quickly installed on an aluminium framework. Available in four sizes, the installation kit can be adapted to all desired lengths by simply cutting the aluminium tube, and can reach up to 180cm.

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

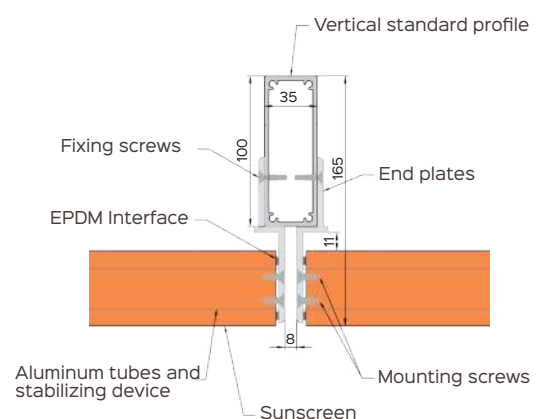


NON-COMBUSTIBLE

SHAMAL® XL SYSTEM EXAMPLE

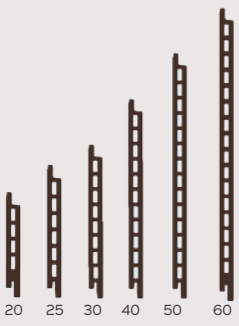


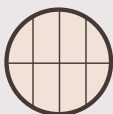


AUTAN® SYSTEM EXAMPLE



Installation in front of profiles not available for Shamal® products

WALL CLADDING PRODUCT GUIDE

PRODUCT	MODULE HEIGHT IN CM	MAXIMUM PRODUCT LENGTH IN CM	FIXING SYSTEM TYPES AND INSTALLATION
PITERAK® SLIM		 <p>Length up to 180 cm</p>	<p>Vertical support profile and clip fixing system</p> <div> <div>Fitting</div>  <div>Horizontal</div> </div> <div> <div>Fitting</div>  <div>Vertical*</div> </div>

STANDARD FINISHES & SKINS



RIDGED 9.2

Piterak® Slim and Piterak® XS
Ridged dimensions : H9 x P2 mm



RIDGED 9.1,5

Piterak® XS
Ridged dimensions : H9 x P1,5 mm



GROOVED 13.6

Piterak® Slim
Grooved dimensions : H13 x P6 mm



GLAZED

Piterak® Slim, Piterak® XS



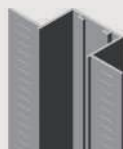
SMOOTH

Piterak® Slim, Piterak® XS



NON-COMBUSTIBLE

FIXING ACCESSORIES



PITP01 Piterak®
Profile ridged main
course support



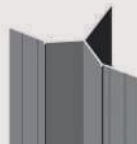
PITP02 Piterak®
Profile main
course support



PITP03 Piterak®
Profile ridged
angle support



PITP04 Piterak®
Profile angle
support



PITP05 Piterak®
Y profile



VCA01
V-clip® 11



PSX01
Standard clip
Piterak® Slim



PITA03
upper clip
Piterak® Slim



PITA04
Clip for
movement joint
Piterak® Slim



PITA05
Clip for
movement joint



PSLA02
Angle slim clip



PXS01
Standars clip
Piterak® XS



PXSA1
Bottom clip
Piterak® XS

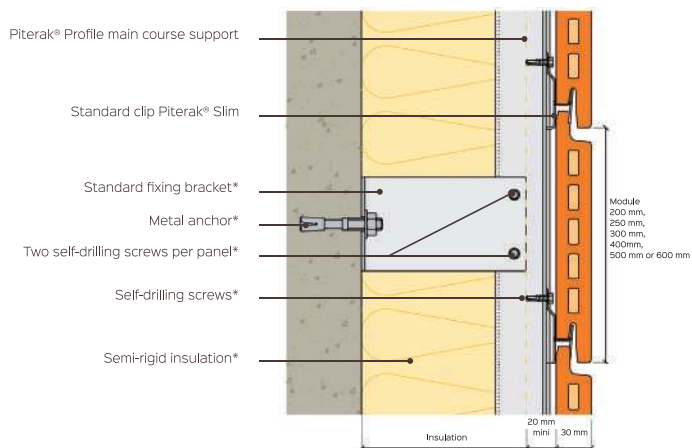


PXSA2
Clip for movement joint
Piterak® XS

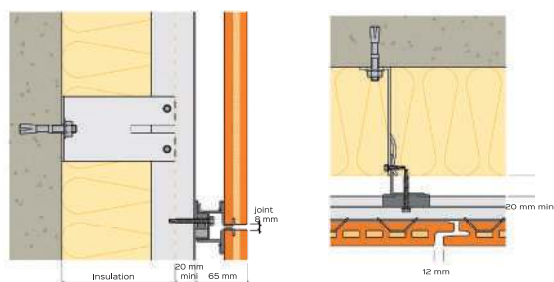
FIXING SYSTEM



Horizontal Installation



Vertical Installation



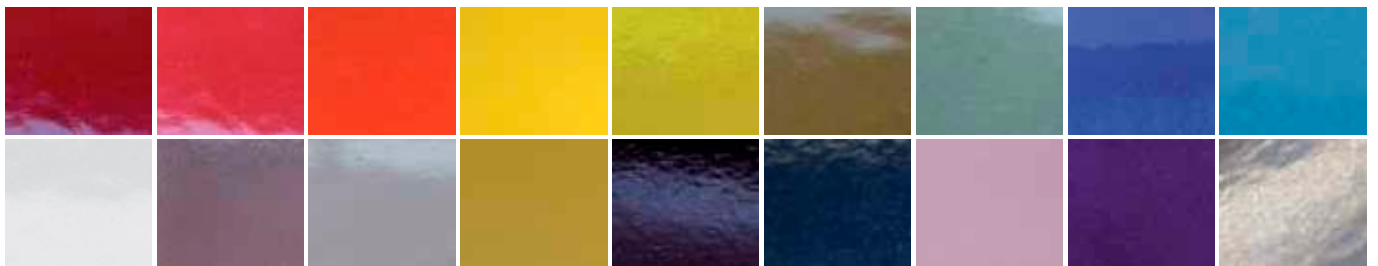
THROUGH COLOURS



	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 e brown	Ebony	Stone color	(03.) Champagne	(11.) Sahara beige	Pearl Grey	Dark grey
SHAMAL® ZONDA® XL		•		•		•			•	•	•			•	•	•	•	•	•	•
PITERAK® SLIM PITERAK® XS AUTAN® XL	•		•	•	•		•	•	•	•		•	•		•		•	•		
AUTAN®, AUTAN® ROUND, HARMATTAN®									•	•	•			•	•	•	•	•	•	

GLAZED

With glazed products, this is an infinite range of colours that Terreal offers to give you possibility of colourful expression, rich and sustainable. For custom colours, please contact us.



**RENOVATED ANCRE RESIDENCE,
COURBEVOIE, FRANCE**

Architect : Levandowski Architectes

Owner : Office HLM de Courbevoie

Installer : GCEB

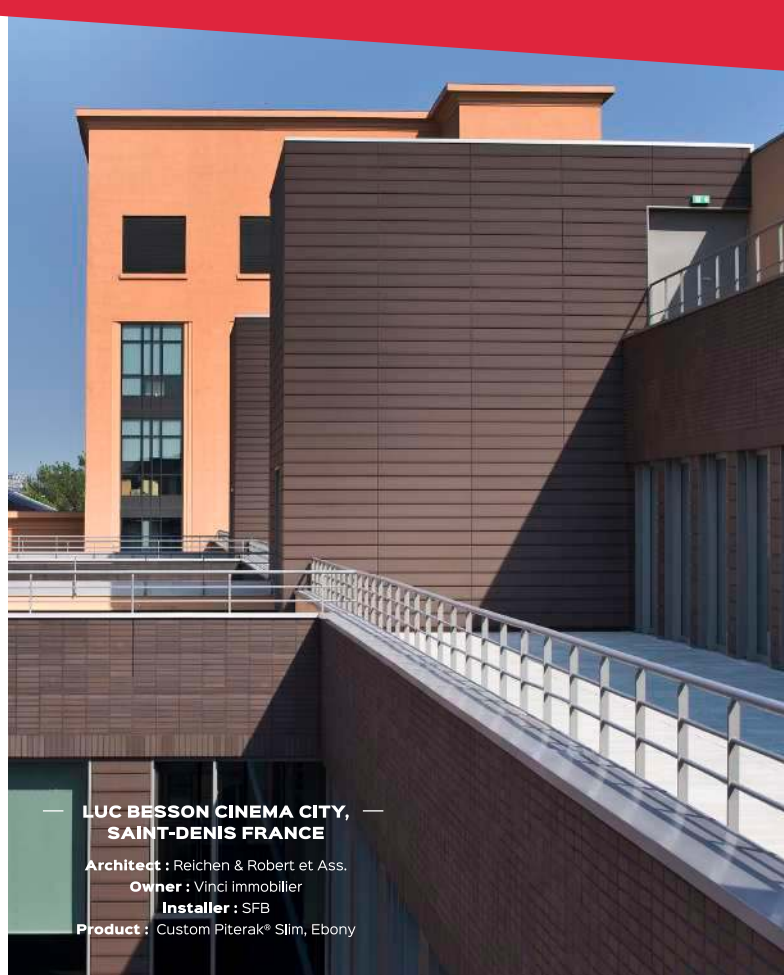
Product : Zéphir® Red-orange, Red, Violine,
Champagne and Glazed White



— STUDENT RESIDENCE VERDE —
NEWCASTLE, UK

Architect : Simpson Haugh and Partners

Product : Piterak® Slim, Glazed Green



— LUC BESSON CINEMA CITY, —
SAINT-DENIS FRANCE

Architect : Reichen & Robert et Ass.

Owner : Vinci Immobilier

Installer : SFB

Product : Custom Piterak® Slim, Ebony



— MAISON DU BATIMENT —

Architect : Atelier Poinville Lavaux
Product : Piterak® & Autan Mix Colours



— ALSTOM C3 OFFICES, —
SAINT-OUEN, FRANCE

Architect : REICHEN & ROBERT et Associés

Installer : GCEB

Product : Custom acoustic cladding

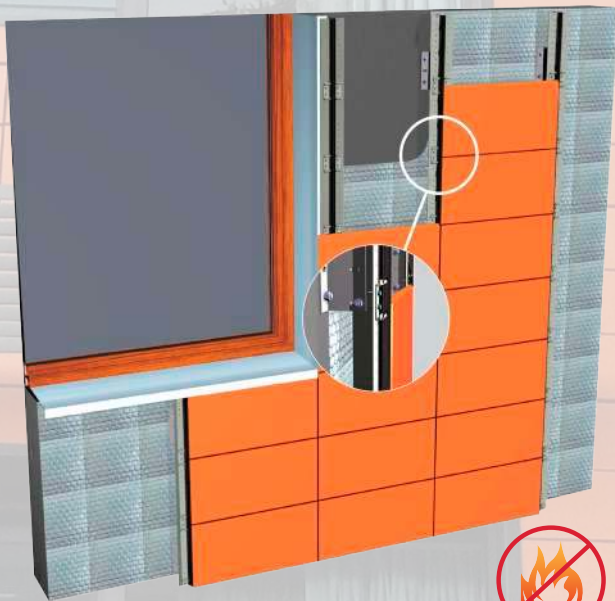


— EVANSVILLE MUSEUM OF ARTS, —
HISTORY & SCIENCE, USA

Architects : PS Architecture and RATIO architects

Product : Piterak® XS white glazed

BREEZE®



NON-COMBUSTIBLE

Extra slim and economic terracotta wall cladding system. Specially designed to be ventilated, non-combustible and maintenance-free.

BREEZE® CLADDING

The advantages of the Breeze®

→ Economical:

Thanks to its small format, its light weight per m², its quick installation and maintenance-free.

→ Water and wind-resistant:

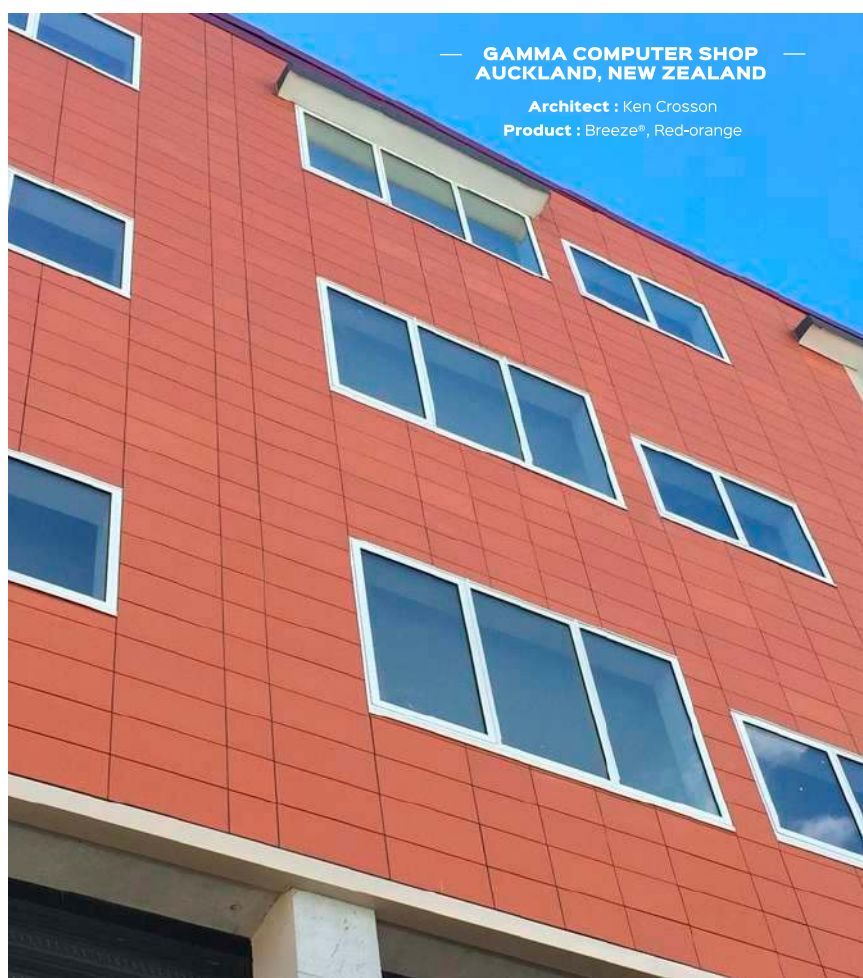
The overlapping section of the Breeze® and its closed vertical joints prevent the ingress of water and the fixing system combined with the solidity of the tile ensures a very good wind load resistance.

→ 100% natural, recyclable and eco-friendly:

Breeze® is made of natural terracotta, a building material that combines thermal inertia, durability and which is totally recyclable.

→ Thermal efficient:

Combined with TERREAL CoolMax™ reflective insulation, Breeze® provides the building with high energy-performance envelop.



— GAMMA COMPUTER SHOP
AUCKLAND, NEW ZEALAND —

Architect : Ken Crosson
Product : Breeze®, Red-orange

The properties of the Breeze® fixing system

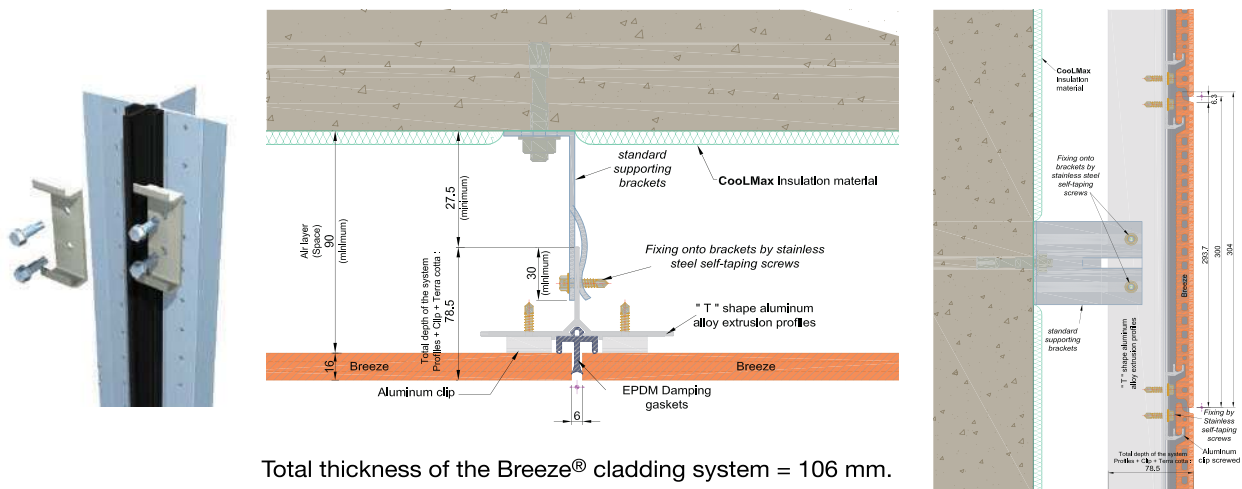
Breeze® terracotta panels are secured to the vertical T-shaped aluminium profile using fixing clips fastened with 2 self tapping stainless steel screws. Vertical aluminium T-shaped profiles have pre-punched holes with vertical spacing of 25mm. The terracotta tiles well-supported on four points by the clips and on its two smaller sides by rubber gasket. Breeze is designed for wind load resistance of 1571 Pa and flexural strength of 150 daN.

Dimensions (mm) H x L x th	Module (mm)	Quantity of products per sqm	U. weight (kg)	Weight per sqm (kg)	Quantity of profiles per main course sqm	Quantity of clips per main course sqm
304 x 594 x 16	300 x 600	5.56/m ²	4.88	27.13	1,67 lm/m ²	11,11/m ²

H = Height, L = Length, th = thickness



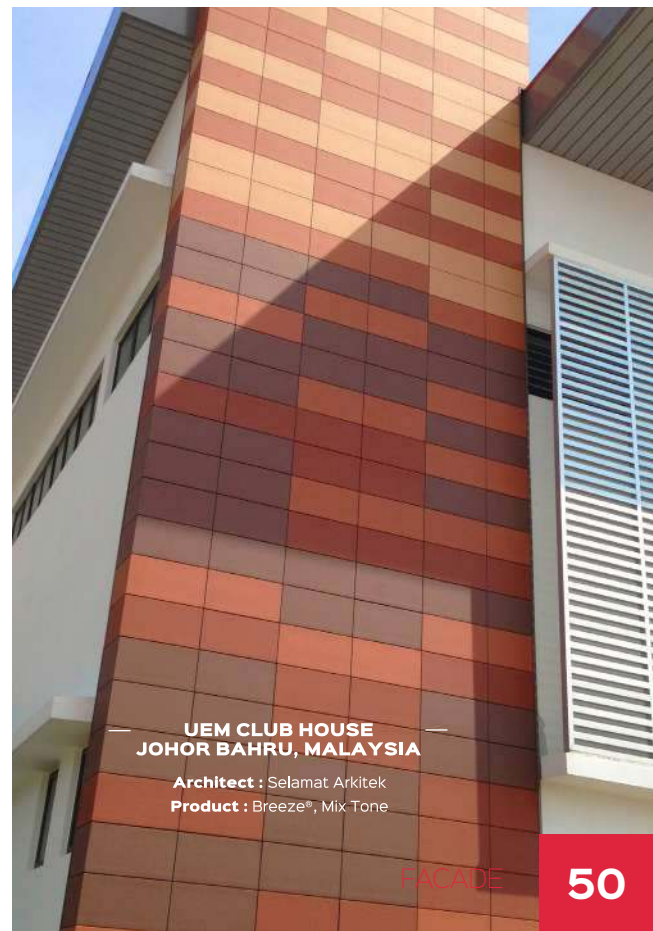
Quick implementation:



Total thickness of the Breeze® cladding system = 106 mm.

Warning: the fixing elements mentioned in *italic* above on the drawing are not supplied by TERREAL.

COLOUR CHART



UEM CLUB HOUSE
JOHOR BAHRU, MALAYSIA

Architect : Selamat Arkitek

Product : Breeze®, Mix-Tone



INDIVIDUAL HOUSE
SETIA ALAM, MALAYSIA

Product : Breeze®, Coffee Brown

FACADE

50

Caring for the roof

So your roof has finally been installed, and it assures you long-lasting waterproof protection and shelter. When properly installed, these roof tiles are guaranteed to do their job for at least 10 years. But like anything with a lifespan, whether old or new, the crown of your home needs care and maintenance in order to prolong its life. By following some procedures, you'll be able to avoid causing any unwanted damage to your roof.

Roof Completion

Upon completion roof tiling, tilers should clear all roof and gutters of remaining debris and rubble. Steel debris, such as nails and screws, must be removed as a priority, to prevent rust from staining roof tiles or corroding the gutters. Perform a detailed final checking of the roof surface to spot any broken, cracked or damaged tiles. Replace them to ensure the roof's waterproofing capability.

Handle with care

Roofs should be treated as fragile, so direct foot traffic on them should be avoided, as it can cause damages. Use appropriate access equipment such as ladders and crawling boards with packing underneath to avoid point loading and damage. If you decide to access your roof without crawling boards, make sure to step on the lower centre part of a tile. Avoid unnecessary roof access: If, for example, an object like a ball gets stuck on the roof, try to remove it using a long stick instead of retrieving it by roof access. When using an extension ladder, make sure to extend it at least 1m higher than your gutter or roof and that its angle is secured.

Without proper care, leakages may be a likely problem. When leaks occur, even if it's minor, it can cause major damages like rotting and mould. There could be many reasons for leakages, most of the leakages are caused by the following:

Cracked, broken or displaced roof tiles

Replace any cracked or broken tiles.

Damaged roof tile pointing and bedding mortar

If tiles are loosened and unsecured, it is possible that your roof bedding may need re-bedding and/or re-pointing.

Clogged drainage channels, valleys or gutters

Clogs can be caused by leaves, branches, debris and

Regular checks

Check for clogged gutters, leaks, and debris on your rooftop, as this can affect the way water runs off your roof. If you need to clear this, either hire a professional, or take the appropriate safety precautions before embarking on your mission.

Do take safety precautions seriously

From what you wear to where you step, your safety is of the utmost importance. Be aware that wearing non-slip or soft-soled shoes, as well as observing weather conditions, could make or break both you and your tiles. A securely fastened safety harness can be used to protect you from falls.

Caution

If in doubt, hire a professional. Working on roofs can be very dangerous, especially if you have not been trained to do so. Before proceeding with any checks or repairs, we do recommend that you to speak to and employ a seasoned professional to see to the matter at hand.

dirt. Removal of the blockage will help water flow off better.

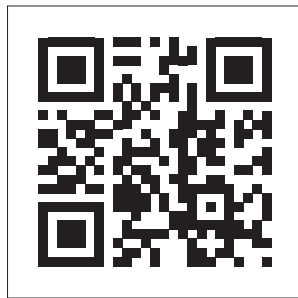
Inadequate or damaged flashings

Flashings are found around roof vents and pipes, and if damaged or inadequate, they should be replaced or added.

Although we guarantee the quality of our roof tiles, this does not cover damage caused by unforeseen circumstances such as:

- Damages caused by third-parties (such as plumbers, window cleaners, installers, and etc)
- Maltreatment (such as high powered jet washes or inappropriate treatment with chemicals/coatings)
- Natural disasters (such as hurricanes, tornadoes, and earth quakes)
- Air pollutants and natural weathering
- Foreign objects falling onto the roof
- War, terrorism, or rioting

Remember, replacing an entire roof is a costly and time-consuming affair, but with the proper care and maintenance of your existing roof, it can last you a long time to come.



www.terreal.com.my



The timeless elegance of clay



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