



Telling Architectural Terracotta Limited
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H92 RAINSCREEN CLADDING

TYPE(S) OF RAINSCREEN CLADDING

120 RAINSCREEN CLADDING

Telling Argeton Terracotta Rainscreen Cladding Systems.

Eisenberg Terracotta facades are manufactured under the 'Argeton' process, a process developed by the German Clay Tile Manufacturers Association to broaden the use of their expertise into construction claddings. Telling Architectural hold the distributorship licence for the UK and collaborate with Telling Ireland Limited in Ireland. These companies provide the specifier with a complete technical service including structural calculations, design and budget costs. System installation is undertaken by contractors who have the required financial and technical resources to control projects of close tolerance and critical interface detail. Only contractors who are experienced and trained by the supplier are suitable for the installation of the Argeton facades and the supply of the system components are available to company's with a proven track record for incorporation in their curtain walling or rainscreen systems.

Manufacture of the tiles is undertaken at a purpose built factory in the east of Germany by F.V. Mueller Dachzieglewerke, the third largest German clay tile manufacturers who were established in 1873. The location of the plant was selected due to the excellence of clays from that region which under their state of the art firing process create a product of superior impact resistance and lower porosity than traditionally produced clay products.

The Eisenberg Argeton System is constructed to comply with DIN 18516 Part 1 relating to ventilated non load bearing structural claddings.

Designs are in accordance with BS 6399: Part 2: 1995, to withstand loadings specific to the geographic location of the individual project.

Eisenberg Argeton is designed without gaskets, pressure clips or seals that can deteriorate within the design life of the system, will not creep under thermal expansion or contraction and tile fastenings are mechanical to ensure their integrity in the case of fire.

The system can be used in both new build and refurbishment in traditional rainscreen form installed to concrete or blockwork substrates or as part of a unitised curtain wall or composite panel construction. Telling Architectural holds leading knowledge of lightweight steel walling systems stick built on site or prefabricated to receive the terracotta rainscreen. The system has been evaluated in use in Germany on structures up to 100 metres in height.



There are several substructure options available for Eisenberg Argeton as the mechanical clip fixing system enables the tiles to be secured to any substrate that can be drilled to receive a rivet or tap anchor. The most common are as follows:

- Terracotta Rainscreen with aluminium substructure.
- Terracotta Rainscreen with aluminium support structure with pre-punched horizontal and vertical 'top hat' or 'T' section fixed directly to the masonry or lightweight steel walls utilizing aluminium 'helping hand' brackets.
- Terracotta Rainscreen with timber rails on metal or masonry structure.

Contact Telling Architectural to determine the most suitable support system for the project proposed.

Aluminium substrates are designed in accordance with DIN413 Part A with British aluminium manufacturers supplying to standards equal or better than the standards within.

A substructure is created using a range of aluminium sections to suit the proposed façade. These include 5mm cleats, 2.00 mm 'T' or 'top hat' sections and 'Z' rails the dies for which are held by Telling suppliers. Each tile is secured in four positioned by mechanically riveted powder coated support clips which lock the tile into place.

All components are tested for their structural performance and fasteners are of either stainless steel or aluminium to prevent bio-metallic reaction.

At vertical tile intersections a powder coated aluminium profile ensures dispersal of moisture and performs in a compression function to prevent tile vibration and tolerance against wind load. No horizontal rails trap or inhibit the passage of moisture within the ventilated cavity.

Eisenberg Argeton has undergone testing at the Taywood Laboratories to meet the demands of CWCT Standards in loading, water penetration and airtightness when used with a lightweight steel walling system.

The design of the system has been developed to meet the Part L Construction regulations in respect of thermal bridging.

Dimensions: Maximum grid size - 500mm in length x 250mm in height.

Optional vertical grid sizes are available in 25mm increments down to 150mm minimum

Optional length tiles are available down to 200mm minimum.

The height and width of the tile can be adjusted on site with a diamond tip saw.

Tiles are a perforated twin skin 30mm in thickness.

The tiles are shaped to minimise the penetration of wind driven rain with an upstand and drip profile.



The most common formats are:

Grid A: 400 x 200mm.	Tile size: 392 x 205mm
Grid B: 400 x 187.5mm.	Tile size: 392 x 190.5mm
Grid C: 400 x 175mm.	Tile size: 392 x 178mm
Grid D: 300 x 150mm.	Tile size: 292 x 153mm
Grid E: 400 x 225mm.	Tile size: 392 x 230mm
Grid F: 425 x 225mm.	Tile size: 417 x 230mm
Grid G: 450 x 200mm.	Tile size: 442 x 205mm
Grid H: 450 x 225mm.	Tile size: 442 x 230mm
Grid I : 500 x 225mm.	Tile size: 492 x 230mm
Grid J : 500 x 250mm.	Tile size: 492 x 255mm

Other tile sizes are available on application.

Dry weight : Tiles not exceeding 50 kg/m² of wall area (55kg/m² for the whole system)

Porosity : Not exceeding 4.25% by mass, as required by DIN 456

Frost resistance : Satisfies 50 freeze/thaw cycles as required by DIN 52252 Part 1.

Impact Resistance transverse strength : 5.8 KN minimum.

Fire Performance : Every component is non combustible.

Fire barriers can be inserted at every storey height on structures above 18.0 metres in height to prevent the spread of flame but ventilation and drainage of the cavity must not be inhibited.

Mechanical attachment of tiles ensures the tiles will be prevented from becoming detached from the aluminium substructure in the event of fire.

Acoustic Performance : The weighted sound reduction of the Eisenberg Argeton is 8 dB and can be increased by utilizing insulation/acoustic slabs of greater density and thickness. Typically 50mm is achievable.

Thermal Performance : Mineral Fibre or Phenolic of an appropriate density and thickness to DIN 18165 Part 1 or Part L Building Regulations are recommended for use with the system. This can be varied to provide exceptional performance according to the wall construction. The insulant is mechanically anchored to the structure within the ventilating cavity to prevent detachment which would inhibit airflow. A vapour permeable membrane or foil face can be specified to protect the insulant against damp.

Fasteners should be non corrosive or synthetic type with plate heads.

Insulants on timber or steel structures can be adhesively bonded.



A minimum ventilated cavity of 30mm is required under DIN Standards between the outer face of the insulant and the inner face of the tile within the cladding zone.

Maintenance : The clay tiles provide a maintenance free façade. Damaged tiles can be replaced without disturbance to the surrounding panels. The low porosity of the tiles provides a façade that is resistant to air pollution and organic growth. Vapour permeable anti graffiti coatings may be used.

Weathering : A horizontal ventilation gap of 5mm is maintained between the tiles. The system has been tested and shown to be capable of resisting the most adverse of weather conditions to maintain a dry structural envelop. The tiles are UV resistant and will weather uniformly. Special grades of aluminum and powder coatings are available for marine environments. The design life of the system is expected to exceed 60 years.

Appearance : The face of the tile can either be smooth or grooved and is available in 11 colours. Glazing of tiles to RAL colours is available. The external corners of the system are normally formed with powder coated aluminium profiles in either a square hollow section or cruciform. Tiles can be mitred. Linings to windows, base trims etc can be supplied either to contrast or blend with the colour of the tile selected and can be sectional or in pod form.

Warranty : Telling provide Professional Indemnity Insurance against design defect alongside Product Liability Insurance.

Refer to the Eisenberg Argeton technical literature for details. CAD details are available on a CD ROM and Telling Architectural recommend early consultation in the design process for specialist systems of Rainscreen Cladding.

120 RAINSCREEN CLADDING.....

Rainscreen Cladding System:

Manufacturer and reference: [Telling Architectural Terracotta Limited, Primrose Avenue, Fordhouses, Wolverhampton, England WV10 8AW. Tel: 01902 789 777. Fax: 01902 398 777 E.](#)

Mail info@telling.co.uk

Web: www.telling.co.uk

Also at

Telling Ireland Limited, 23, Adare Mews, Douglas, Cork, Ireland. Tel: +353 214 891 291. Fax +353 214 894689. E. Mail: tellingireland@eircom.net

Product Reference: Eisenberg Argeton System

Type:

- Terracotta Rainscreen with aluminium substructure.
- Terracotta Rainscreen with aluminium support structure on masonry/ lightweight steel walls.



Rainscreen Panel:

Material: Terracotta Tiles.

Tile Dimensions:

The most common formats are:

Grid A: 400 x 200mm.	Tile size: 392 x 205mm
Grid B: 400 x 187.5mm.	Tile size: 392 x 190.5mm
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Grid J : 500 x 250mm.	Tile size: 492 x 255mm

Thickness: 30mm

Finish/Colour: Smooth or grooved. Colour: Natural Red./Salmon Pastel Red./Brick Red./Tuscan Red./Volcanic Grey./Silver Grey./Iron Grey./Platinum Grey./Light Grey./Sahara Yellow./Sand

Fasteners: Aluminium mechanically fixed clips.

Number and location of fasteners: 2 no clips at the bottom edge of each tile, riveted to aluminium support sections, provide support to the tile above and restraint to the tile below.

Joint Type: The tiles are shaped with an upstand and drip profile to seat within aluminium clip sections.

Joint Width: Vertically 8mm – Horizontally 12mm (visual).

Air Gap: 30mm minimum.



Secondary support/framing system:

(Terracotta Rainscreen with aluminium substructure)

112 x 40 x 2.0mm vertical top hat section at centres determined by the tile module selected.

(Terracotta Rainscreen on masonry or lightweight steel walls)

112 x 40 x 2.0mm 'top hat' or 'T' section at centres determined by the tile dimension selected.

Material: Aluminium with aluminium cleats.

Fasteners: Tapping anchors – Seek advice from Telling.

(Terracotta rainscreen with aluminium substructure)

Aluminium 'Top Hat' sections fixed to the main frame of the rainscreen with stainless steel self tapping anchor.

(Terracotta Rainscreen on masonry or lightweight steel walls)

Wall brackets or horizontal rails fixed to the supporting structure with anchors to suit the project requirements – seek advice from Telling Architectural.

Number and location of fasteners: Seek advice from Telling Architectural.

Backing wall: See general guidance.

Breather Membrane: [As clause 785/Not required](#)

Thermal Insulation: [As clause 776](#)

Accessories:

[Special closer clips for terracotta tiles at head of the panels.](#)

[Special continuous closer clip.](#)

[Special base clips at the bottom of the panel.](#)

[Aluminium corner profile – closed hollow box section.](#)

[Aluminium corner profile – open cruciform section.](#)

[Aluminium corner profile: half round section.](#)

[Thermal isolator pads](#)