



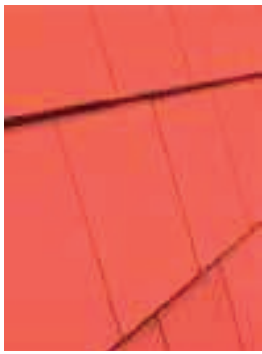
Its simple, flat shape gives the roof a geometric, linear look: the new FLAT tile is the "architect's tile" for individual, architecturally creative roofs.

From a technical point of view, it is very contemporary - its reduced structure facilitates installation of the roofing, which is quick and also particularly economical. Although the upper part is flat, the profiled lower part makes it as stable as any Tegolaia product.

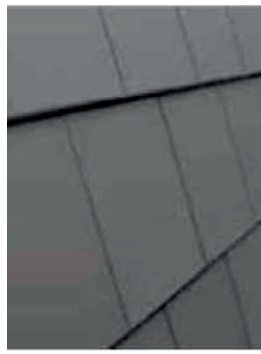
FLAT tile in detail:

- construction in accordance with DIN/EN 490/491 with longitudinal interlocking
- far better quality specifications than required
- covered side interlock and double stepped base for optimal protection
- waterproof, frost-resistant, non-deformable, tailor-made with high compressive strength
- coverage: approx. 8.0 - 10.8 cm
- normal roof inclination 25°
- consumption per m² approx. 10 pieces

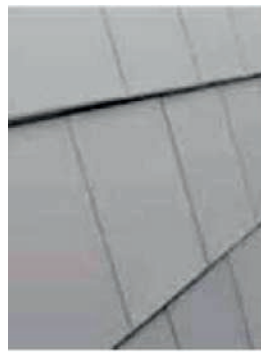




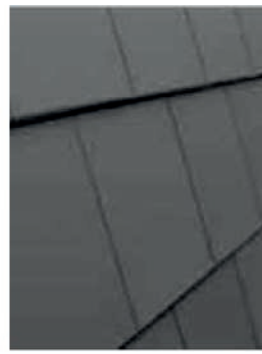
DARK RED



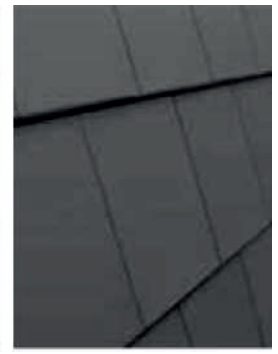
DARK GREY



LIGHT GRAY



GRANITE




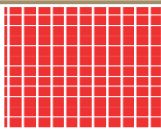

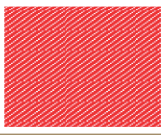




ANTHRACITE

LONGLIFE matt finishing

Smooth - including exposed edge: the elegant surface of the LONGLIFE tiles opens up a bright future to Tegolaia roofs. Thanks to the further developed Longlife technology, even the visible edge is now non-porous and thus the entire roof surface is permanently protected - for a roof with a harmonious look.

LONGLIFE tiles stay clean for a long time, as if they had just been laid. Dirt, algae and moss adhere to a small extent and are washed away by rain.



Comparison of tile surfaces	TOP 2000 S Tiles with high-quality surface	LONGLIFE Tiles with high colour fastness and a self-cleaning effect - matte or gloss finish
active self-cleaning Thanks to the non-porous surface structure, dirt particles do not adhere to the Longlife tiles and are then washed away by rain.		
long-lasting colour Longlife technology provides maximum resistance against atmospheric agents and UV rays. Result: excellent colour durability		
high abrasion resistance Longlife tiles are particularly resistant to wear. Their optimised surface protects the tiles, including the exposed edge.		
effective anti-mould and moisture The self-cleaning effect also reduces formation of lichens, mosses and algae.		

Essential information

Comparative data are based on extensive laboratory testing and years of outdoor exposure.

Differences in colour shade determined by printing technique are possible.

Surfaces of tiles: it is possible that due to transport the surfaces show very small marks. This does not compromise the quality of the tiles.









FLAT TILE

COVERAGE PROGRAMME

Contoured tiles with a wide variety of functions that meet the requirements of architecturally homogeneous and sophisticated roofing surfaces.

Contoured tiles and accessories reduce laying costs and facilitate calculation. They are also a fundamental safety factor.

	Whole tile Length: ~ 42,0 cm Width: ~ 33 cm Weight: ~ 5,1 kg	Length of coverage: ~ 31,2 - 34,0 cm* Width of coverage: ~ 30,0 cm Consumption: ~ 10,0 pezzi/m ²		End Length: ~ 45,0 cm Width of coverage: ~ 18,5 cm	Length of coverage: ~ 40,0 cm Weight: ~ 4,7 kg
	Half tile Length: ~ 42,0 cm Width: ~ 18,2 cm Weight: ~ 2,5 kg	Length of coverage: ~ 31,2 - 34,0 cm* Width of coverage: ~ 15,0 cm		Three-way (four-way also available) Weight: ~ 4,8 kg	Consumption: 1,0 pezzo/padiglione
	Dual wave tile Length: ~ 42,0 cm Width: ~ 30,0 cm Weight: ~ 4,8 kg	Length of coverage: ~ 31,2 - 34,0 cm* Width of coverage: ~ 30,0 cm		Aeration tile (aeration section ~ 17 cm²) Length: ~ 42,0 cm Width: ~ 33 cm Weight: ~ 4,0 kg	Width of coverage: ~ 30,0 cm Consumption: Single
	Dual wave half tile Length: ~ 42,0 cm Width: ~ 15,0 cm Weight: ~ 2,8 kg	Length of coverage: ~ 31,2 - 34,0 cm* Width of coverage: ~ 15,0 cm		Aluminium tile with double tube support* Length: ~ 42,0 cm Width: ~ 33 cm Weight: ~ 1,7 kg	Width of coverage: ~ 30,0 cm Consumption: Single
	Left lining tile 9 cm or 11 cm side tile Length: ~ 42,0 cm Width: ~ 33 cm Weight: ~ 7,0 kg	Length of coverage: ~ 31,2 - 34,0 cm* Width of coverage: ~ 30,2 cm		PVC tile complete with vent Length: ~ 42,0 cm Width: ~ 33 cm Weight: ~ 1,8 kg	Width of coverage: ~ 30,0 cm Consumption: Single
	Right lining tile 9 cm or 11 cm side tile Length: ~ 42,0 cm Width: ~ 33 cm Weight: ~ 7,0 kg	Length of coverage: ~ 31,2 - 34,0 cm* Width of coverage: ~ 27,0 cm		Tile for full aerial Length: ~ 42,0 cm Width: ~ 33 cm	Width of coverage: ~ 30,0 cm Consumption: Single
	Half left lining tile 9 cm or 11 cm side tile Length: ~ 42,0 cm Width: ~ 18,2 cm Weight: ~ 4,4 kg	Length of coverage: ~ 31,2 - 34,0 cm* Width of coverage: ~ 15,2 cm		Snow guard tile Length: ~ 42,0 cm Width: ~ 33 cm Weight: ~ 5,3 kg	Width of coverage: ~ 30,0 cm Consumption: Single
	Half right lining tile 9 cm or 11 cm side tile Length: ~ 42,0 cm Width: ~ 18,2 cm Weight: ~ 4,4 kg	Length of coverage: ~ 31,2 - 34,0 cm* Width of coverage: ~ 12,0 cm		Snow stopper hook	
	Ridge ~ 2,5 pcs/m Length: ~ 45,0 cm Width: ~ 25,0 cm Weight: ~ 4,0 kg	Length of coverage: ~ 40,0 cm Width of coverage: ~ 19,0 cm Consumption: ~ 2,5 pezzo/m			

* (depending on roof slope)

* Delivery times on request

All sizes are approximate. Tolerances according to DIN EN 490/491. Roofing dimensions must be surveyed on site. Subject to change.



FLAT TILE

LAYING

Type of laying: only cross-covering (arrangement with offset joints).

Technical features

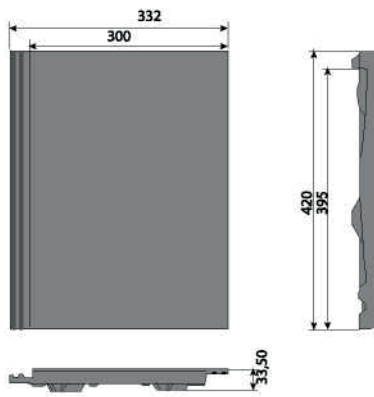
Tile	Planum
Manufacturer	Nelskamp (D)
Total length	~ 42.0 cm
Coverage	~ 8.0 - 10.8 cm (depending on roof slope)
Total width	~ 33.2 cm
Width of coverage	~ 30.0 cm
Length of coverage	~ 31.2 - 34.0 cm (depending on roof slope)
Consumption per m ²	~10.0 pcs
Weight of each tile	~5.1 kg
Weight per m ²	~ 51.0 kg
Normal roof slope	25°

Tile stop hooks

Hook for side interlocking (hook) 430/001 for 30x50 ZIAI battening

Hook for side interlocking (hook) 430/002 for 40x60 ZIAI battening

Hook for lateral interlocking (insertion) 409/019



Consumption of roofing material

Roof batten	~ 3.3 m/m ² - (incl. 10% waste)
Counter-batten	~1.7 m/m ² . (incl. 10% waste)
Tiles	~ 10.0 pieces/m ²
Boxes	
Bar tiles	30 pieces (palletised on request: 180 pieces per Europallet)
Half tile	consumption, ~ 3.0 pieces/m
Dual wave tile	~ 3.0 pieces/m only for left side of roof
Coating tile for counter-battening	~3.0 pcs/m
Aluminium tile with grille	consumption
Aluminium tile with single step	consumption
Ridge tiles	~ 2.5 pieces/m
"Corner" ridge tiles	~ 2.2 pieces/m
Necoroll (5 m per roll)	consumption
Ridge-stop hook	1.0 piece per ridge tile 2.0 pieces per ridge tile d = 4.5 mm
Wood screws	Screwing depth 24 mm
Ridge ends Ridge batten bracket	1.0 piece for closing ridge
	1.0 piece per truss
Ridge batten bracket	1.0 piece/- 70 cm
Air delivery part for gutter	~ 1.1 piece/m-Air delivery ~ 200 cm ² /m

only applies to deliveries in Germany

Laying!

The following are valid for the laying of our tiles:

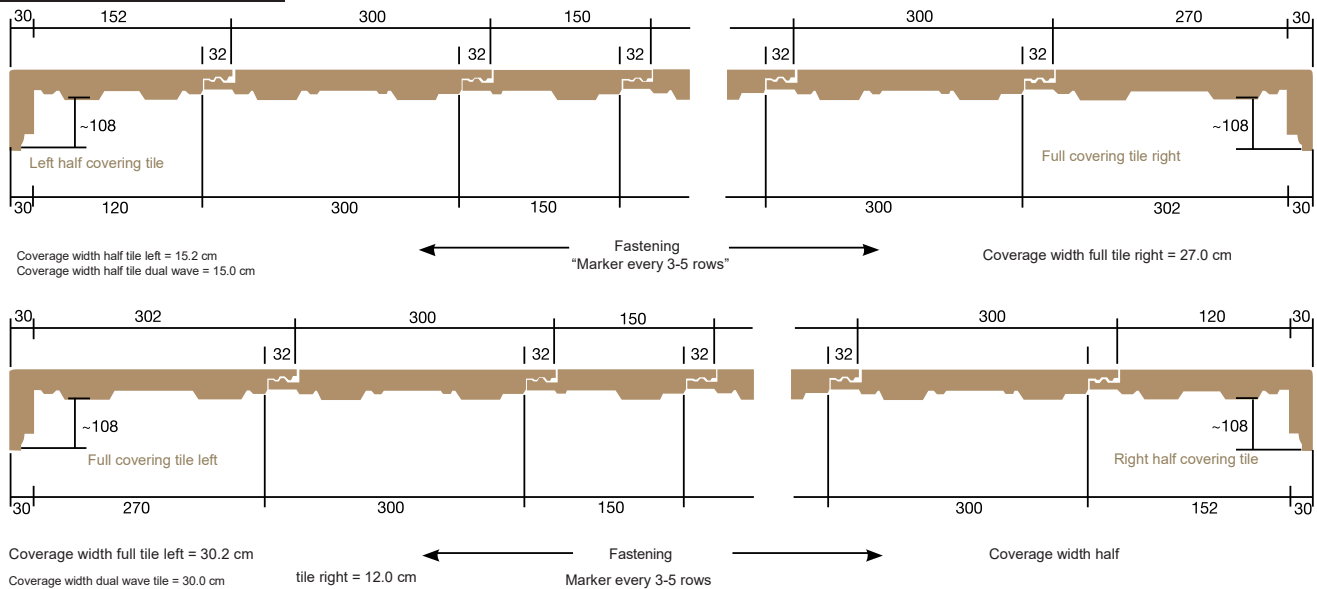
1 manufacturer's requirements. These requirements may differ from the technical rules of the installers and have priority over them (installation instructions).

The images with the details are to be understood as recommendations. This must be taken into account as a matter of priority. Other functional designs are of course possible in accordance with the technical rules.

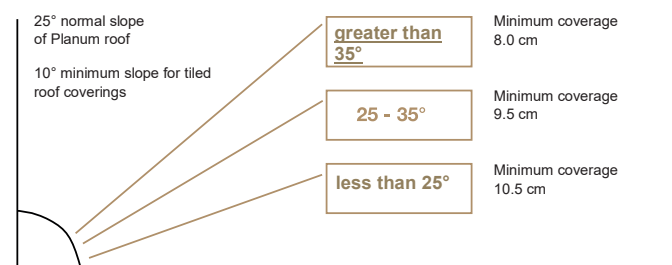
2 technical rules for installers (rules for tile cladding).

3 VOB standards (tiled cladding).

Coverage widths



Minimum coverage/normal roof slope/roof slope limits



The conformation of the tiles allows a variable height coverage. For the roofing, the slope of the roof is the determining factor. For tiles with deep longitudinal interlocking, the indicative values for the minimum cladding heights shown next to them apply.

If the normal roof slope is exceeded, the additional measures set out in the technical rules for installers must be applied.

For equivalent attic roofing alternatives: follow the manufacturer's instructions and laying guidelines.

The warranty is the responsibility of the corresponding manufacturer.



Allocation of additional measures except for secondary buildings¹⁾ in accordance with the technical rules for installers

Roof slope	Additional requirements ²			
	Use - construction - climatic conditions - technical systems			
	no other additional requirements ²	an additional requirement ²	two more additional requirements ²	three more additional requirements ²
≥25°	Class 6 3.3 Sheath (USB-A)	Class 6 3.3 Sheath (USB-A)	Class 5 2.4 Overlapping/jammed undertile roofing (UDB-A; UDB- B ⁵) or Class 4 3.2 Reinforced sheath with weld seams (USB- A) or underlay ⁴	Class 4 2.2 Welded/glued underlay or 2.3 Bituminous sheath lined undercover or 3.2 Sheath reinforced with weld seams (UDB-A; UDB-B ⁵ ; USB-A) or underlay ⁴
≥21°	Class 4 2.2 Welded/glued underlay or 2.3 Bituminous sheath lined undercover or 3.2 Sheath reinforced with weld seams (UDB- A; UDB- B ⁵ ; USB- A) or underlay ⁴	Class 4 2.2 Welded/glued underlay or 2.3 Bituminous sheath lined undercover or 3.2 Sheath reinforced with weld seams (UDB- A; UDB- B ⁵ ; USB-A) or underlay ⁴	Class 3 2.1 Underlay reinforced with weld seams and protected against water ingress or 3.1 Sheath reinforced with weld seams and protected against water ingress (UDB- A; UDB- B ⁵ USB- A) or underlay ⁴	Class 3 2.1 Underlay reinforced with weld seams and protected against water ingress or 3.1 Sheath reinforced with weld seams and protected against water ingress (UDB- A; UDB- B ⁵ ; USB- A) or underlay ⁴
≥17°	Class 3 2.1 Underlay reinforced with weld seams and protected against water ingress or 3.1 Sheath reinforced with weld seams and protected against water ingress (UDB- A; UDB- B ⁵ ; USB- A) or underlay ⁴	Class 3 2.1 Underlay reinforced with weld seams and protected against water ingress or 3.1 Sheath reinforced with weld seams and protected from water ingress (UDB- A; UDB- B ⁵ ; USB- A) or underlay ⁴	Class 3 2.1 Underlay reinforced with weld seams and protected from water ingress or 3.1 Sheath reinforced with weld seams and protected from water ingress (UDB- A; UDB- B ⁵ ; USB- A) or underlay ⁴	Class 3 2.1 Underlay reinforced with weld seams and protected against water ingress or 3.1 Sheath reinforced with weld seams and protected from water ingress (UDB- A; UDB- B ⁵ ; USB-A) or underlay ^{2 3 4 5 4}
≥13°	Class 2 1.2 Rain-resistant attic roofing	Class 2 1.2 Rain-resistant attic roofing	Class 1 1.1 Waterproof attic roofing	Class 1 1.1 Waterproof attic roofing
≥10°	Class 1 1.1 Waterproof attic roofing	Class 1 1.1 Waterproof attic roofing	Class 1 1.1 Waterproof attic roofing	Class 1 1.1 Waterproof attic roofing

Minimum roof slope 10°

The additional measures shown in the table are the minimum measures taking into account Table 1 of 'Information for attic roofs, underlays and sheathing'.

2) The additional requirements constitute the categories as per paragraph 1.1.3. Additional requirements may result from the weighting within the category as per paragraph 1.1.3. For example, climatic conditions can generate several additional requirements.
3) Allowed only if the manufacturer has presented a document relating to the reliability of the products used, including accessories (sealing tapes or sealants under counter-battens, adhesive tapes, reinforcements with pre-packaged weld seams) within the framework of the resistance test against heavy rain and the rain test for 24 hours with a roof slope of 15°.
Otherwise, the next higher class must be chosen.
4) Underlays are to be allocated in accordance with the classification in 'Information for attic roofs, underlays and sheathing'. Restrictions by the manufacturer must be taken into account. Instructions on protection against water ingress can be found on the product information sheet.
5) if indices 2), 3), 4), 5) on the product information sheet are met:
2) resistance against heavy rain, documented by the 'heavy rain resistance test for waterproofing sheaths and undertile sheaths - TU Berlin"
3) additional requirements regarding ageing are documented by increasing the temperature to 80°C in the test procedure Appendix C 5.2 of DIN EN 13859-1 ;
4) The manufacturer indicates the duration of outdoor exposure ensuring the properties indicated above;
5) The manufacturer confirms the suitability as temporary roofing and indicates the duration of the outdoor exposure guaranteeing the properties indicated above.