

Assignment of additional measures for Erlus Roofing tiles



Increased demands due to:

- long spar lengths (longer than 10 metres)
- special roofs like cambered dormer windows or arched and conical roofs
- concentrated water channel on parts of the roof surface, e.g. under drainpipes, where valleys form junctions and the like
- snowy regions $\geq 1,5 \text{ kN/m}^2$ of ground snow load
- windy regions in wind load zone 4 or in ridge or hill-top positions or where gullies form

RDN	DESCRIPTION AND TECHNICAL FEATURES	MODEL	ROOF PITCH	with minimum requirement	from one further increased demand
16°	Roof coverings consisting of Erlus roof tiles and original Erlus accessories with triple interlocking¹⁾ The interlocking can be either continuous or with an interrupted profile. Roof tiles with a continuous interlocking are characterised by the fact that the headlock and the sidelock that carry residual water are not interrupted and consist of three interlockings. With an interrupted interlocking, the headlock drains directly into the water-bearing plane. The height overlap must form a triple interlocking joint. The side overlap must form at least a double interlocking joint.	Karat E 58 RS Level RS (in a cross bond pattern)	$\geq 16^\circ$ RDN	Class 5	Class 4
			$\geq 12^\circ$	Class 4	Class 3
			$\geq 10^\circ$	Class 3	Class 2
			$\geq 7^\circ$ MDN***	Class 1	Class 1
20°	Roof coverings made of Erlus roof tiles and original Erlus accessories with double interlocking²⁾ The interlocking can be either continuous or with an interrupted profile. Roof tiles with a continuous interlocking are characterised by the fact that the headlock and the sidelock that carry residual water are not interrupted and consist of two interlockings. With an interrupted interlocking, the headlock drains directly into the water-bearing plane. The height overlap must form a double interlocking joint. The side overlap must form a double interlocking joint.	E 58 SL /-D Hohlfalz SL/-D E 58 MAX E 58 PLUS	$\geq 20^\circ$ RDN	Class 5	Class 4
			$\geq 16^\circ$	Class 4	Class 3
			$\geq 12^\circ$	Class 3	Class 2
			$\geq 10^\circ$ MDN	Class 1	Class 1
22°	Roof coverings consisting of Erlus roof tiles and original Erlus accessories with interlocking³⁾ The interlocking can be either continuous or with an interrupted profile. Roof tiles with a continuous interlocking are characterised by the fact that the headlock and the sidelock that carry residual water are not interrupted and consist of at least one interlocking. With an interrupted interlocking, the headlock drains directly into the water-bearing plane. The height overlap forms an interlock, or the tile base has a rebate or at least one rib with a special shape. The side overlap must form an interlocking joint.	E 58 S Karat XXL /-D Level RS (in rows) Großfalz XXL Reformpfanne XXL Forma, Monaco Mönchpfanne	$\geq 22^\circ$ RDN	Class 5	Class 4
			$\geq 18^\circ$	Class 4	Class 3
			$\geq 14^\circ$	Class 3	Class 2
			$\geq 10^\circ$ MDN	Class 1	Class 1
25°	Roof coverings consisting of Erlus roof tiles and original Erlus accessories with headlock or head rib and foot rib and sidelock³⁾ These roof tiles are characterised by at least one headlock and sidelock or at least one head rib and foot rib and sidelock (water and cover lock).	Linea (in a cross bond pattern) Großfalzziegel (in a cross bond pattern) Reformpfanne SL Scala	$\geq 25^\circ$ RDN	Class 5	Class 4
			$\geq 21^\circ$	Class 4	Class 3
			$\geq 17^\circ$	Class 3	Class 2
			$\geq 13^\circ$	Class 1**	Class 1
30°	Roof coverings consisting of Erlus roof tiles and original ERLUS accessories with headlock and head rib and foot rib and sidelock³⁾ These roof tiles are characterised by at least one headlock and sidelock or at least one head rib and foot rib and sidelock. They are produced with different types of crimp design to cover the water seams or interlock with the water seams with or without a central bead. Roof coverings consisting of plain Erlus roof tiles and accessories³⁾ Plain roof tiles are manufactured with different types of cuts. These roof tiles are characterised by the fact that they are generally covered several times and laid in a bond. Double or crown covering is preferred.	Linea (in rows) Großfalzziegel (in rows) Falzziegel (when laid in rows or in a cross bond pattern) Plain tile in double or crown covering	$\geq 30^\circ$ RDN	Class 5	Class 4
			$\geq 26^\circ$	Class 4	Class 3
			$\geq 22^\circ$	Class 3	Class 2
			$\geq 18^\circ$	Class 2	Class 1
40°	Roof coverings consisting of curved Erlus roof tiles³⁾ These roof tiles are concave or convex, without ribs, and have a round water course. They are covered at the sides and height. Roof coverings consisting of plain Erlus roof tiles and accessories³⁾ Plain Erlus roof tiles are manufactured with different types of cuts. These roof tiles are characterised by the fact that they are generally overlapped and covered in rows or thirds.	Mönch- und Nonnenziegel fränk. Rinnenziegel Biberschwanzziegel Einfachdeckung mit SpließBen	$\geq 40^\circ$ RDN	Class 5	Class 4
			$\geq 36^\circ$	Class 4	Class 3
			$\geq 32^\circ$	Class 3	Class 3
			$\geq 28^\circ / \geq 23^\circ *$	Class 2*	Class 2*
			$\geq 10^\circ$ MDN	Class 1*	Class 1*

CLASSIFICATION

Class 1

waterproof sub-roof consisting of waterproofing membranes or stitched underlay made of diffusion-open UDB-eA (for extended applications; with integrated counter battens in each case)

Class 2

rainproof sub-roof consisting of waterproofing membranes or stitched underlay made of UDB-eA (for extended applications; with exposed counter battens on nail-sealing tape / compound in each case)

Class 3

glued sub-covering/under-bracing with nail-sealing tape / compound - with ETB/ ETA verified nail seals or wooden roof sheathing

Class 4

glued sub-covering/under-bracing

Class 5

sub-covering or under-bracing

DEFINITIONS EXTRACTED FROM THE ZVDH RULES AND REGULATIONS:

Roof pitch is the inclination of the roof structure (substructure) in relation to the horizontal. The roof pitch is expressed as the angle between the horizontal and the roof surface in degrees (°).

Standard roof pitch (RDN) is the lowest roof pitch limit at which a roof covering has proven to be rainproof in practice.

Minimum roof pitch (MDN) is the lowest roof pitch limit that must not be undercut.

For roof coverings, the pitch of the covering material is always lower than the roof pitch due to the installation technique.

¹⁾RDN (= standard roof pitch) is the state of the art in science and technology ²⁾RDN (= standard roof pitch) is state of the art with many years of proven use in practice ³⁾RDN (= standard roof pitch) is a generally recognised rule of technology

* Measures required to preserve horizontal battens, e.g. horizontal battens made of moisture-resistant materials, water-repellent covering on horizontal battens and the like ** Subordinate structures like carports, storage sheds and patio roofs etc. do not need as much protection. As with cold roof structures containing an unfinished attic, the integration of the counterbattens can be dispensed with here if necessary, and the extra measure for raintightness can be carried out as Class 2. This is to be agreed by separate contract. *** Erlus Karat only: We recommend concluding separate contracts for designs of advanced technology or of unconventional science and technology.

If there is a risk of ice build-up through or around built-in components or under solar systems, we recommend assuming higher requirements.