



PREMIUM CLAY TILES SINCE 1896

MULDENVARIABEL

THE HISTORICAL, STYLISH TWIN TROUGH
INTERLOCKING TILE



MICHAEL NEUMANN
Roof tile production

"We at Laumans have a matching tile for every roof. In addition to a large selection on models and colours we also produce order-related products for our customers. It feels good to inspire the customer with creative, individual solutions."

THE HISTORICAL TWIN TROUGH INTERLOCKING TILE FOR A STYLISH ROOF – **MULDENVARIABEL**







The historical tile model **MULDENVARIABEL** dates back to a development by Wilhelm Ludowici in 1881. In addition to the geometric arrangement of the two troughs, it particularly impresses with its delicately structured pattern on the roof. Stylish and balanced, the twin trough interlocking tile convinces not least by two ways of laying: parallel or broken-bonded.



MULDENVARIABEL

THE HISTORICAL, STYLISH TWIN TROUGH INTERLOCKING TILE

-  **Design:** geometrical design with a rustic look
-  **Surface effect:** filigree structured with dynamic play of light and shadow
-  **Technology:** double interlocking joint for increased rain protection, even at the lowest roof pitches; variable covering length for quick and easy mounting; offers two layout options: parallel or broken-bonded
-  **Application:** ideal for the restoration of historic buildings and monument preservation. The No. 1 tile for rustic country homes.



UNIQUE SURFACES AND EXCLUSIVE COLOURS FROM MATT TO HIGH GLOSS

FOR CLASSIC AND STYLISH ROOF DESIGN.

NATURAL FIRED – Naturally matt surface

The most original form of colouring which solid colours the entire roof tile body.

NATURAL ENGOBES – Matt surface

Clay suspension of natural minerals which is poured over the roof tile before firing.

BRILLIANT GLAZES – Glossy surface

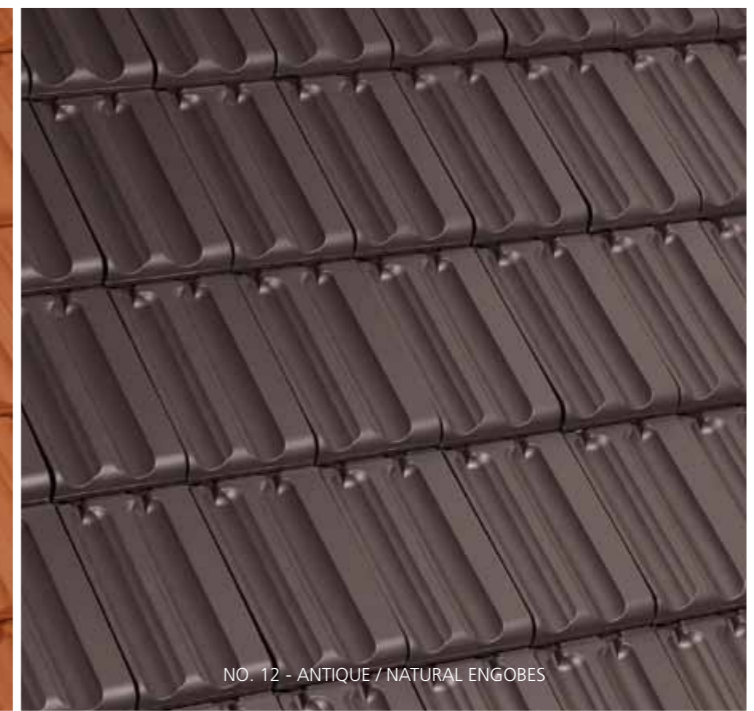
Ceramic coatings that fuse with the roof tile during firing.

30 YEARS WARRANTY ON ALL LAUMANS ROOF TILE PRODUCTS

First-class natural raw materials, groundbreaking production processes and comprehensive external and internal quality control ensure the consistently high quality of our roof tiles.



NO. 11 - NATURAL RED / NATURAL FIRED



NO. 12 - ANTIQUE / NATURAL ENGOBES



NO. 14 - RED / NATURAL ENGOBES







NO. 30 - XENON-GREY / NATURAL ENGOBES

40% MORE COLOUR – 100% MORE ENTHUSIASM



UNRIVALED LAUMANS COLOUR APPLICATION TECHNOLOGY. OVERPOUR INSTEAD OF SPRAYING OR SPINNING

-  Up to 40 % higher thicknesses of coloured clay sludges for intense and consistent colours
-  Uniquely defined, lively colours for an exclusive and inimitable naturalness
-  Noticeably smoother roof tile surfaces for a perfect look and dirt-repellent effect
-  Extremely hard surfaces for protection against mechanical and environmental influences



NO.50 - BLACK / BRILLIANT GLAZES



NR. 108 - DARK BROWN / BRILLIANT GLAZES





MULDENVARIABLE / NO. 14 - RED / NATURAL ENGOBES

INDIVIDUAL ROOF DESIGN: CREATIVE AND TIMELESSLY BEAUTIFUL

A roof with Lauman's premium Tegelen clay roof tiles from the Lower Rhine combines tradition with innovation, tranquility with suspense, classicism with modernity. Its natural elegance is based on the perfect interplay of form and function and has the potential to create a harmonious image with any kind of architecture. Laumans offers many different roof tile models, colours and surfaces. So all clients have an opportunity to realize their own dream roof.

LET YOURSELF BE INSPIRED

As a pioneer of industrial production, Laumans is one of the leading companies, especially in glazed and engobed tiles. One reason for the success is the special colour-coating technique of showering: coloured clay slurries and glazes are not sprayed or spun, but poured over the tiles before the firing. The result is more intense and more consistent colours with up to 40 % higher thickness - for noticeably smoother roof tiles. Also unique are the trend glazes which combine all the positive qualities of a conventional glaze with a deliberately matt appearance. Our claim: the right tile for every roof - from extra matt to high gloss.

SHOWING YOUR COLOURS

With the design of your roof you show your colours in the truest sense. Reds radiate warmth and enjoyment of life, grey and black appear factual and elegant. You set very special accents with noble blue or green roof tiles.

The various ceramic surfaces emphasize the design aspect of the roof in the overall context of the house to a great extent and make every property a real "eye-catcher".

EYE-CATCHING ORNAMENTS

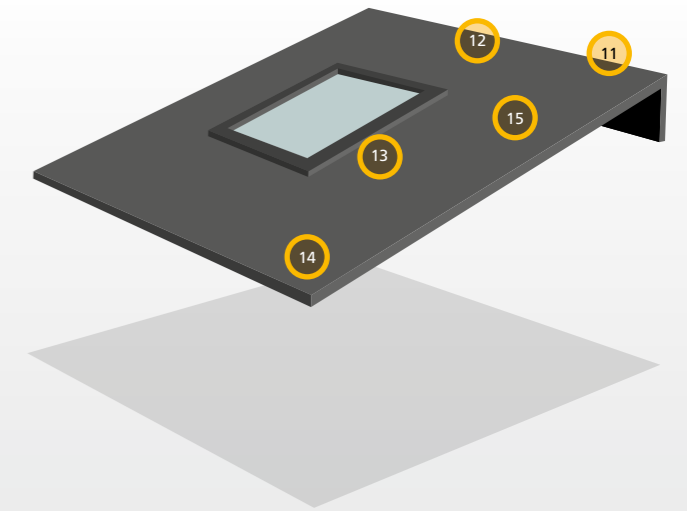
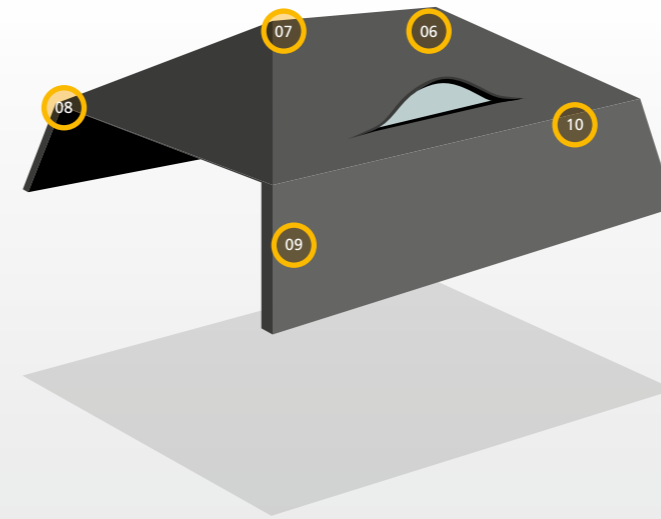
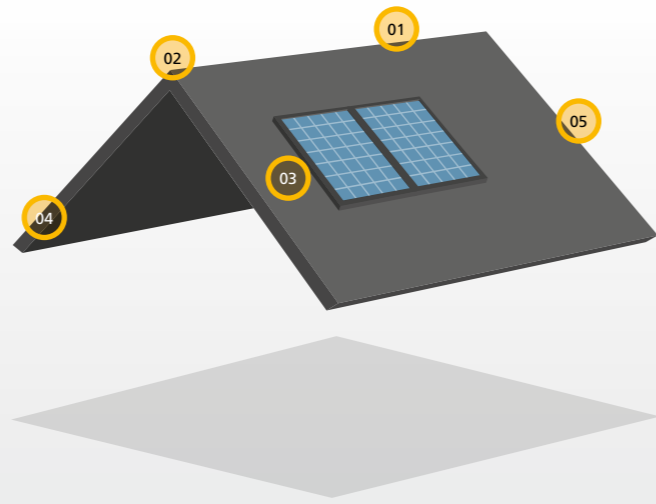
You can also use roof trims, ornaments and figures to give your dream roof even more personality. Let your ideas run wild. At Laumans you will find a large selection of roof ornaments. Just visit our website www.laumans.de and ask your specialist or dealer.

ADVANTAGE: INDIVIDUALITY

- The right tile for each roof because of a great variety of models
- Exclusive surface variants from matt to high gloss
- Comprehensive colour palette in particularly natural, lively tones
- Intense colours and smooth surfaces thanks to unique colour application technology
- Compatible with every kind of architecture
- Extensive range of roof decorations for additional customizations



ACCESSORIES MADE OF CLAY. FOR PERFECT ROOFS.



Only the all-ceramic roof, from the eaves to the ridge, guarantees the unmistakable overall performance of a Laumans clay tile roof. One in shape and function unbeatable unit that defies all environmental influences and does not show material fatigue even after decades. Available in all available colours and finishes.

OTHER ACCESSORIES

We supply various roof accessories, such as snow chains, runners, and safety step pans for static or safety reasons, in a material combination of metal and / or plastic. These products are available upon request in the chosen roof tile colour.

ORNAMENTS MADE OF CLAY

Make your roof even more individual with ornaments made of clay. Whether rooster, sleepwalker or cat, your ideas have no limits. Talk to your specialist about the many possibilities.



01 RIDGE TILE
Perfect finishing tile for secure coverage of opposite roof surfaces on the ridge and hip.

02 ROOF RIDGE ENDER
Elegant ridge formation as a starting or ending tile.

03 SOLAR CONNECTION
Indispensable accessory tile for solar systems for penetration of the connection cable and pipework

04 VERGE TILE INTERIOR BAULK
Visually compact finish to the side roof plane and protection for the roof connection against driving rain. Available for left and right sides.

05 VERGE TILE EXTERIOR BAULK
Visually compact finish to the side roof plane and protection for the roof connection against driving rain. Available for left and right sides.

06 ANTENNA TILE
For the safe implementation of satellite dish and antenna masts.

07 HIP CAP
All-ceramic covering of the transition between the ridge and hip. Suitable for roof pitches of 18–50°.

08 HIP STARTING TILE
Shapely and functional design for the start of the hip.

09 HALF TILE
Width compensation for existing roofs or for precise laying work on roof structures and roof windows.

10 MANSARD TILE
The accessory for creating mansard roofs or other creative roof shapes according to the requirements of the roofer.

11 SHED ROOF TILE
Finishing tile for all monopitch roofs. With 90° angle as a standard-shaped part. Other shapes at the roofer's request.

12 UNIVERSAL SHED ROOF TILE
Universal cover with finishing tiles.

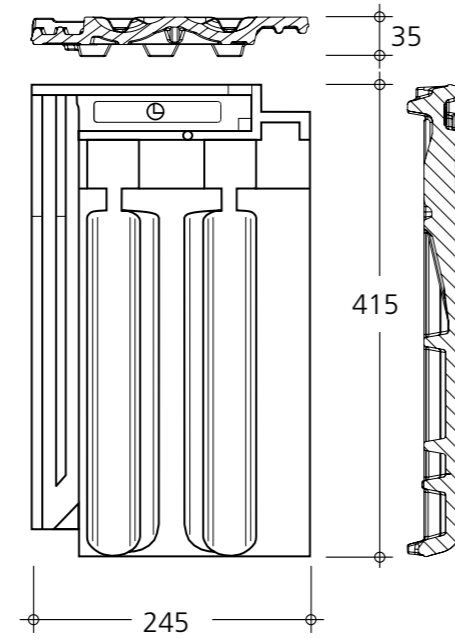
13 DOUBLE BRIM TILE
Left-hand finish for ascending masonry or roof windows.

14 VENTILATION TILE
Additional surface ventilation in the eaves and ridge area. Ensures air circulation above the insulation and avoids condensation.

15 VENTILATION PIPE
For the driving rain-resistant ventilation of sanitary pipes and exhaust ducts over the roof.

TECHNOLOGY WITH SYSTEM

In addition to all visual aspects, the protective function and safety of your roof takes first place. Thanks to the wide contact surface and the pronounced suspension, the **MULDENVARIABEL** is firmly and securely on the roof batten. The four-way covering and intensive locking in the four-tile corner gives the tile surface additional stability and makes it extremely safe against wind suction. The double interlocking joint defies driving rain and snow. **And this already for roof pitches from 17 ° with corresponding additional measures.**¹

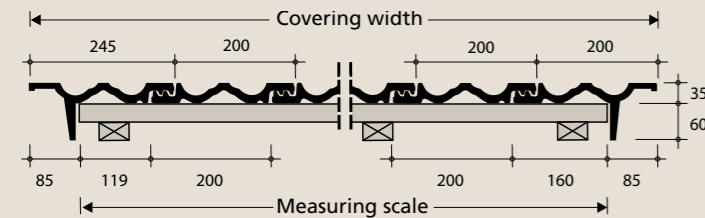


MULDENVARIABEL

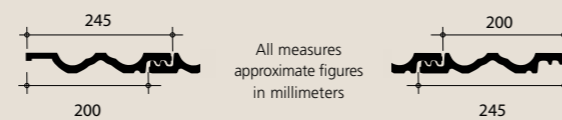
| DIMENSIONS | COVERING LENGTH | COVERING WIDTH | REQUIRED | WEIGHT | MINIMUM ROOF PITCH | STANDARD ROOF PITCH | PACKAGE CONTENTS |
|----------------------|----------------------|----------------|--------------------------------------|--|---------------------|---------------------|-----------------------|
| approx. 415 x 245 mm | approx. 330 - 350 mm | approx. 200 mm | from approx. 14,3 per m ² | per pc.: approx. 3,7 kg per m ² : 52,9 - 56,2 kg | 17° with under-roof | 25° | 300 pc. on europallet |

EVALUATION/SIZING OF THE COVERING WIDTH

A: Verge tile with interior baulk

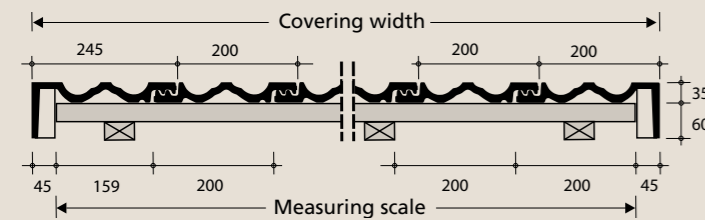


B: Double brim tile



All measures approximate figures in millimeters

A: Verge tile with exterior baulk

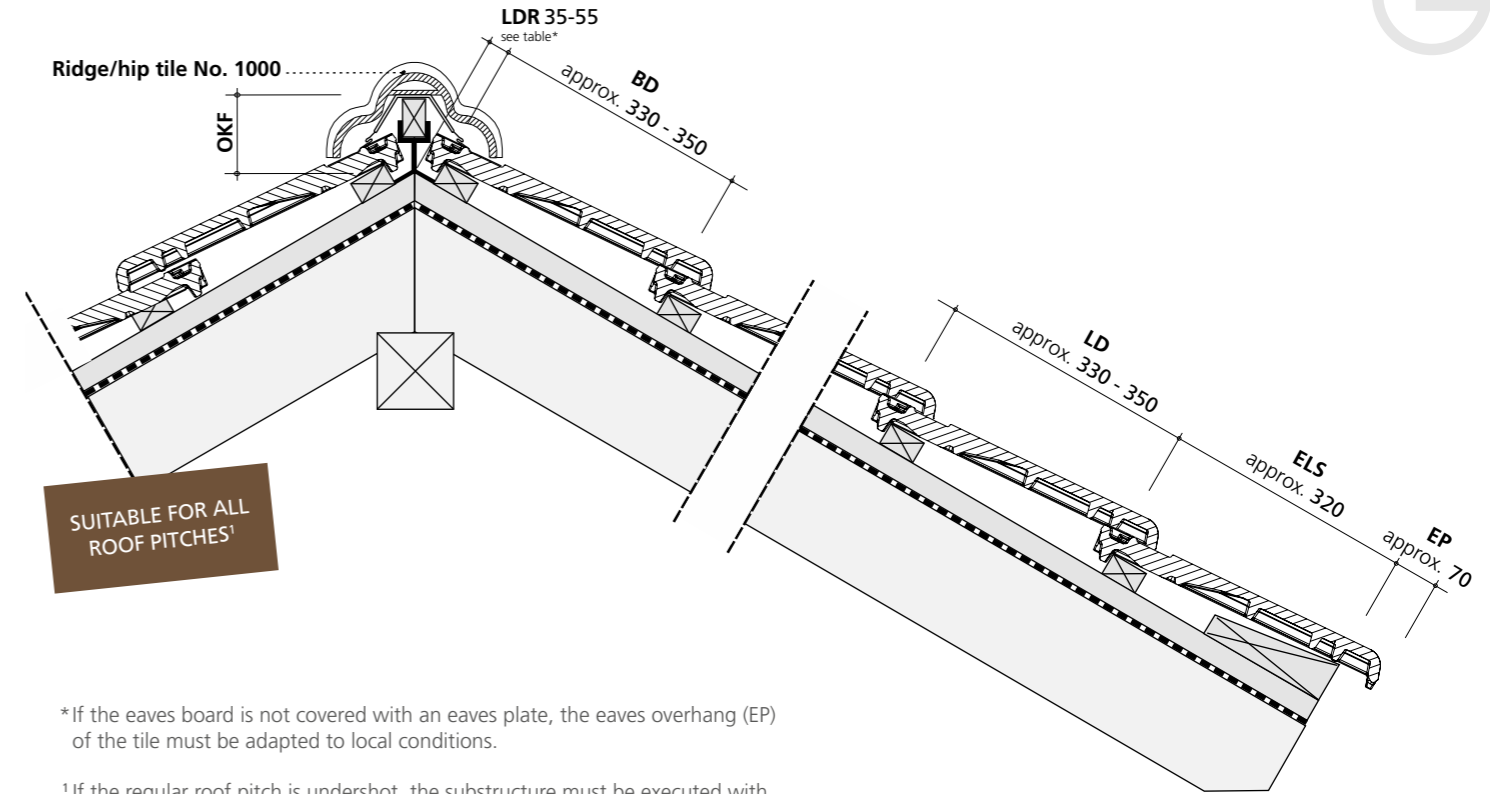


Tile clips for storm protection
409-214 Clipholster® to batten in ZIAL
456-203 Clipholster® to hang onto batten size 30 x 50 ZIAL
456-011 for batten size 40 x 60 ZIAL

Average covering width in rows without or with roof tile in mm construction width = respective measuring scale

| ROWS | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
|--|---------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Roof tile (RT) | | 200 | 400 | 600 | 800 | 1.000 | 1.200 | 1.400 | 1.600 | 1.800 | 2.000 | 2.200 | 2.400 | 2.600 | 2.800 | 3.000 |
| Double brim tile + RT | 200 245 | - | - | 645 | 845 | 1.045 | 1.245 | 1.445 | 1.645 | 1.845 | 2.045 | 2.245 | 2.445 | 2.645 | 2.845 | 3.045 |
| Verge tile l./r. (interior baulk) + RT | 119 160 | - | - | 479 | 679 | 879 | 1.079 | 1.279 | 1.479 | 1.679 | 1.879 | 2.079 | 2.279 | 2.479 | 2.679 | 2.879 |
| Verge tile l./r. (exterior baulk) + RT | 159 200 | - | - | 559 | 759 | 959 | 1.159 | 1.359 | 1.559 | 1.759 | 1.959 | 2.159 | 2.359 | 2.559 | 2.759 | 2.959 |

| ROWS | | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|--|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Roof tile (RT) | | 3.200 | 3.400 | 3.600 | 3.800 | 4.000 | 4.200 | 4.400 | 4.600 | 4.800 | 5.000 | 5.200 | 5.400 | 5.600 | 5.800 | 6.000 |
| Double brim tile + RT | | 3.245 | 3.445 | 3.645 | 3.845 | 4.045 | 4.245 | 4.445 | 4.645 | 4.845 | 5.045 | 5.245 | 5.445 | 5.645 | 5.845 | 6.045 |
| Verge tile l./r. (interior baulk) + RT | | 3.079 | 3.279 | 3.479 | 3.679 | 3.879 | 4.079 | 4.279 | 4.479 | 4.679 | 4.879 | 5.079 | 5.279 | 5.479 | 5.679 | 5.879 |
| Verge tile l./r. (exterior baulk) + RT | | 3.159 | 3.359 | 3.559 | 3.759 | 3.959 | 4.159 | 4.359 | 4.559 | 4.759 | 4.959 | 5.159 | 5.359 | 5.559 | 5.759 | 5.959 |



*If the eaves board is not covered with an eaves plate, the eaves overhang (EP) of the tile must be adapted to local conditions.

¹If the regular roof pitch is undershot, the substructure must be executed with increased requirements

EVALUATION/SIZING OF THE RAFTER LENGTH

Eaves overhang (EP) 70 mm: number of rows (according to chart) + lath distance eaves (ELS) + lath distance ridge (LDR)

Covering length

| ROWS | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | |
|-----------------------|-----------------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| COVERING LENGTH in mm | 330 | 660 | 990 | 1.320 | 1.650 | 1.980 | 2.310 | 2.640 | 2.970 | 3.300 | |
| | 340 | 680 | 1.020 | 1.360 | 1.700 | 2.040 | 2.380 | 2.720 | 3.060 | 3.400 | |
| | 350 | 700 | 1.050 | 1.400 | 1.750 | 2.100 | 2.450 | 2.800 | 3.150 | 3.500 | |
| ROWS | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| | COVERING LENGTH in mm | 3.630 | 3.960 | 4.290 | 4.620 | 4.950 | 5.280 | 5.610 | 5.940 | 6.270 | 6.600 |
| | COVERING LENGTH in mm | 3.740 | 4.080 | 4.420 | 4.760 | 5.100 | 5.440 | 5.780 | 6.120 | 6.460 | 6.800 |
| ROWS | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |
| | COVERING LENGTH in mm | 6.930 | 7.260 | 7.590 | 7.920 | 8.250 | 8.580 | 8.910 | 9.240 | 9.570 | 9.900 |
| | COVERING LENGTH in mm | 7.140 | 7.480 | 7.820 | 8.160 | 8.500 | 8.840 | 9.180 | 9.520 | 9.860 | 10.200 |
| COVERING LENGTH in mm | 7.350 | 7.700 | 8.050 | 8.400 | 8.750 | 9.100 | 9.450 | 9.800 | 10.150 | 10.500 | |

All values are determined with a 30 x 50 mm lathing. If other slat cross sections are used, than these must be checked at the construction site beforehand!

The accurate lath spacing has to be determined at the building site with the delivered tiles.

Lath distance ridge (LDR)

| Roof pitch | 20° | 30° | 40° | 50° |
|----------------|-------|-------|-------|-------|
| Ridge No. 1000 | 55 mm | 35 mm | 35 mm | 35 mm |
| Ridge No. 300 | 40 mm | 35 mm | 40 mm | 35 mm |

Distance from ridge vertex / Top of ridge lath (OKF):

| Roof pitch | 20° | 30° | 40° | 50° |
|----------------|--------|--------|-------|-------|
| Ridge No. 1000 | 130 mm | 110 mm | 90 mm | 80 mm |
| Ridge No. 300 | 120 mm | 105 mm | 95 mm | 80 mm |

Further fitting tiles available

| Term | Covering width/Measuring scale |
|--|--------------------------------|
| Half tile | 100 mm |
| Ventilation tile, ventilation approx. 15 cm ² | 200 mm |
| Vent pipe/antenna opening tile | 200 mm |
| Solar connection tile, admission max. 65 mm Ø | 200 mm |
| Shed roof tile 90°, side length 220/100 mm | 200 mm |
| Shed roof verge tile left, interior baulk | 245 mm / 119 mm |
| Shed roof verge tile right, interior baulk | 200 mm / 160 mm |

Shed roof tiles with different slopes and dimensions, mansard tiles etc. on request.

For ridge / hip tile and accessories, see pages 16-19



Gebr. Laumans GmbH & Co. KG
Stiegstr. 88, D-41379 Brüggen
Phone: +49 21 57 14 13 0
Fax: +49 21 57 14 13 39
info@laumans.de, www.laumans.de

