

# **Docke Bitumen Shingles**

INSTALLATION INSTRUCTIONS



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## 1. General information

The definition: "Döcke PIE roof shingles" is a generic name for such materials as "Döcke PIE bitumen shingles" and "Döcke PIE laminated shingles".

This instruction describes the installation technology of Döcke PIE bitumen shingles of all series and collections, Döcke PIE roofing underlayment, and Döcke PIE valley membranes. A detailed description and characteristics of these materials can be found on the website [www.docke.ru](http://www.docke.ru).

The arrangement of rafter system, roof battens, ventilation, and roof insulation shall be carried out based on the design and thermotechnical calculations and regulatory documents in force for the construction region.

Read carefully these installation instructions and familiarize yourself with the manufacturer's warranty.

### 1.1 The intended use of the material.

Roofing piece material "Döcke PIE bitumen roof shingles" is intended for roofing of pitched roofs of buildings and structures with a slope between 12 to 90 degrees.

### 1.2 Storing the material.

The material should be stored strictly observing the following requirements:

**1.2.1** The material should be stored only in its original packaging on pallets. It is strictly prohibited to damage the original manufacturer's packaging.

**1.2.2** The material should be stored only indoors in a dry room, at least 1.5 m away from heating devices.

**1.2.3** One pallet can't be stored on the top of the other.

**1.2.4** The material should be stored at a temperature between -40°C min and + 50°C max.

**1.2.5** The material should be stored at a relative humidity not exceeding 80%.

**1.2.6** Protect the stored material from direct sunlight.

**1.2.7** Vertical stacking of bitumen shingles: maximum 16 packs in a row in height.

**1.2.8** Vertical stacking of laminated shingles:

- maximum 16 packs in a row in height, provided interlaying with OSB or plywood sheets every 5 rows;
- max 5 rows without an interlay sheet.

### 1.3 Temporary storage of material (not exceeding 30 days).

Temporary storage of material is allowed only in intact original packaging on pallets excluding contact with the ground. The pallets should be located in places protected from sunlight.

### 1.4 General safety rules during installation.

**1.4.1** Under no circumstances there should be a possibility of a person falling from a height (Building Code SNiP 12-04-2002).

**1.4.2** To prevent slipping, do not leave the packaging in the installation work area.

**1.4.3** Walking on underlayment and roof shingles is only allowed in case of utmost necessity. In this case, any mechanical damage to the material, affecting both its appearance and physical and mechanical properties, must be excluded. To move on the roof, use special supports, transitional bridges, scaffolds, and other devices. Failure to comply with this requirement can lead to both damage to the appearance of the roofing, and an increase in the risk of falling from the roof.

### 1.5 Installation of Döcke PIE bitumen shingles at ambient temperatures below +10°C.

**1.5.1** A heat gun must be used to:

- ensure fast and reliable adhesion of shingles;
- increase the elasticity of Döcke PIE shingles at their bending locations;
- heat Döcke PIE mastic for bitumen shingles.

**1.5.2** For at least 24 hours before the installation, keep the shingles, underlayment, and mastic at a min temperature of + 20°C.

**1.5.3** The material for installation should be taken outdoors as needed.

**1.5.4** If the Döcke PIE self-adhesive underlayment is installed at temperatures below +15°C, the membrane should be additionally fixed mechanically using Type 1 fasteners (Table 1) (Fig. 8 c).

Under no circumstances roofing works are allowed during rain or snowfall. In case of rain or snow during installation, measures should be taken to cover the roof in to prevent moisture from getting under the already installed roofing.

2. Tools and fasteners required for the installation of Döcke PIE bitumen shingles



Fig. 1. Roofer tool list

Table 1 - Selection of the type of fastener depending on the material used.

Fastener type	Application scope	Fastener	Length	Features
Type 1	Underlayment, bitumen shingles, starter/ridge shingles, valley membrane, peak flashing	Galvanized threaded nails	Min 30 mm	Head diameter at least 8 mm
		Galvanized screwed nails		
Type 2	Solid deck - OSB-3 boards, FSF plywood, matched or edged board	Galvanized threaded nails	Not less than 50 mm	Countersunk headed
		Galvanized screwed nails		
		Galvanized, anodized or galvanized wood self-tapping screws		

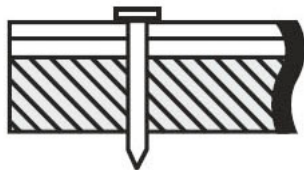


Fig. 2. An example of a proper nailing for the installation of the product.



Fig. 3. An example of improper nailing for the installation of the product.



Fig. 4. Threaded nails suitable for product installation.



### 3. Preparation of roof deck

The shingles take the form of the deck on which they are mounted. The more carefully the deck is prepared, the more evenly the shingles will lie.

Use OSB-3 boards, FSF plywood, as well as matched or edged board a solid deck for laying shingles.

#### 3.1 General rules for laying OSB-3 boards or FSF plywood:

3.1.1 The boards must be dry and even.

3.1.2 The thickness of the boards is determined on the basis of a design calculation, depending on the snow load, the slope of the roof, the presence of battens, etc.

3.1.3 The boards must be cut and staggered as shown in Fig. 5.

3.1.4 The horizontal joint of the boards must be on the batten boards, without exception.

3.1.5 The difference in height between the boards should not exceed 2 mm.

3.1.6 3 - 5 mm spacing between the boards should be left to counterbalance linear expansion in the summer time.

3.1.7 Fasteners for solid deck boards - type 2 (Table 1).

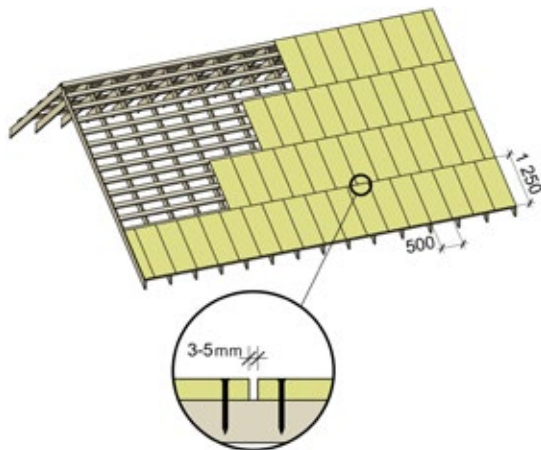


Fig. 5. Laying OSB-3 boards or FSF plywood solid decking over the battens.

#### 3.2 General rules for laying a solid deck from matched or edged board.

3.2.1 The wood must be at least grade 1 wood with a moisture content not exceeding 20%.

3.2.2 Attention! Fragments of annual rings should be placed with bulges downward (Fig. 6).

3.2.3 The thickness of the board is determined on the basis of a design calculation, depending on the snow

load, the pitch of the roof, the spacing of the rafters and must be at least 25 mm. The width of the board should not exceed 100 mm. Calibrate the material prior to its use to ensure the difference in the height of the boards does not exceed 1 mm.

3.2.4 The horizontal spacing between matched boards and the vertical spacing for all boards should be 1 mm.

3.2.5 Fastening for boards - type 2 (Table 1). The board should be fixed to each rafter in 2 fixation points (Fig. 6).

3.2.6 The vertical joint of the boards must be on the rafter in all cases and must be staggered in every row (Fig. 6).

3.2.7 The board should be treated with antiseptic and fire-retardant compounds.

3.2.8 It is recommended to install Döcke PIE underlayment based on SBS-modified bitumen on a solid deck made of matched or edged boards.

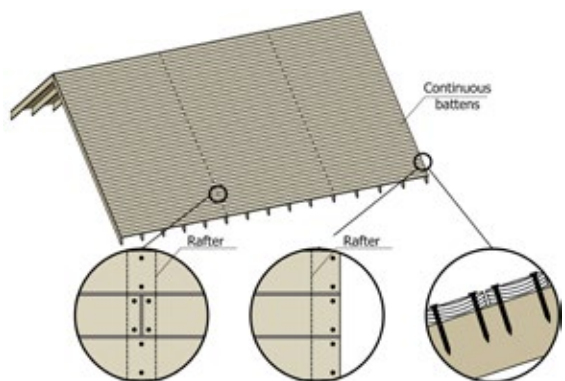


Fig. 6. Laying a solid decking of grooved or edged boards.

### 4. Installation of Döcke PIE underlayment

Döcke PIE underlayment is designed for additional waterproofing of the roof.

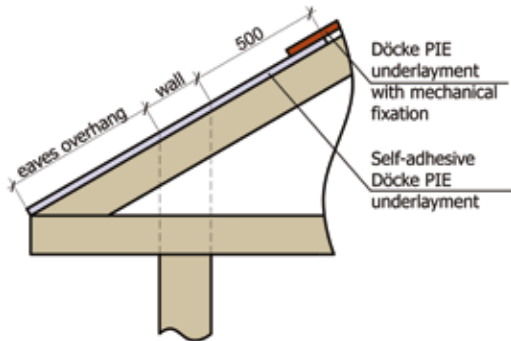
#### 4.1 General requirements for the installation of Döcke PIE underlayment:

4.1.1 In all cases, the underlayment must be used over the entire roof area, regardless of its pitch.

4.1.2 In the first place, the Döcke PIE underlayment should be installed on the roof valley, if there is one.

4.1.3 At the roof valley and along the eave overhang, it is recommended to install Döcke PIE self-adhesive underlayment. The size of the eaves overhang is equal to the size of the eaves overhang itself plus part of the slope above the wall plus 500 mm (Fig. 7). The remaining surface of the slopes may be covered with

Döcke PIE underlayment with mechanical fixation (Fig. 9, Fig. 11). The self-adhesive Döcke PIE underlayment can also be installed over the entire roof area.



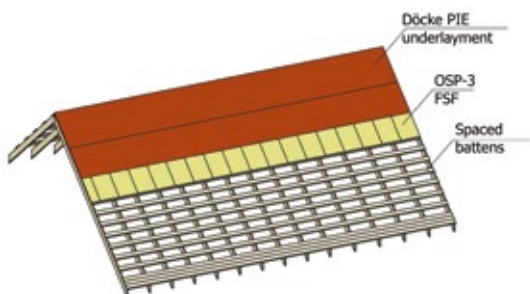
**Fig. 7. Layout of self-adhesive underlayment on the eaves.**

**4.1.4** If ambient temperature is at least + 15°C, the self-adhesive Döcke PIE underlays can be installed without additional mechanical fixation (Fig.10a). The self-adhesive underlayment should be nailed (type 1 fasteners, Table 1) following the pattern given in Fig. 10c in cases when the work is to be interrupted and in the case of installation at temperatures below +15°C.

**4.1.5** To release the tension in the material that was created by rolling it, Döcke PIE underlayment should be rolled out on any flat surface before laying on the roof and allowed to settle until the creases disappear, especially in the part of the roll at the cardboard core. The roll can be pre-cut into strips according to the length of the slope. It is recommended to pile the strips one on top of another for the fastest straightening.

**4.1.6** The underlayment is installed parallel to the eaves, from bottom to top, overlapping each following row by 100 mm, end overlaps should be 150 mm.

To minimize walking on underlayment, especially on steep slopes, it is allowed to carry out sequential installation from top to bottom: first, the top row of OSB-3 or FSF plywood is installed, then the top strip of the underlayment is installed over the installed row of boards (Fig. 8). This installation method is only suitable for simple roofs without roof valleys.



**Fig. 8. Sequential top-down installation of Döcke PIE underlayment.**

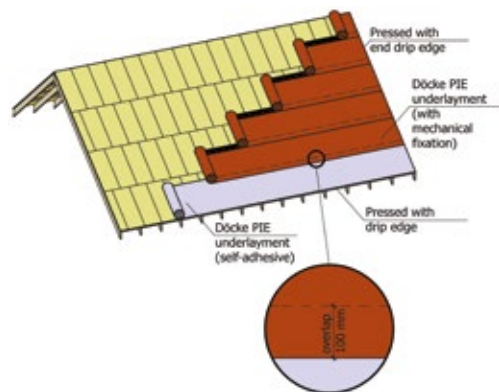
**4.1.7** On hips or ridges, the underlayment strips on one slope are cut along the line of the hip or ridge, and on the other, adjacent slope they overlap over the hip or ridge onto the trimmed strip of the adjacent slope, overlapping by 100 mm at the hips and 150 mm on the ridges. If the hip or ridge has ventilation holes in the solid decking for the aerator, overlapping of the underlayment over the hip or ridge at the location of the ventilation holes is not required.

**4.1.8** Underlayment fasteners - type 1 (Table 1). The fixation pattern for Döcke PIE underlayment is given in Fig. 9. Along the eaves, the self-adhesive Döcke PIE underlayment should be pressed with drip edges (p. 5).

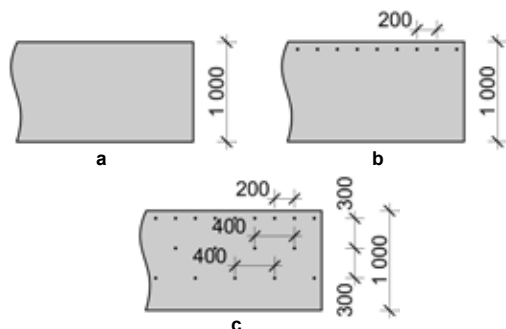
**4.1.9** Avoid wrinkling and keep the underlayment stretched.

**4.1.10** On the overlaps, the underlayment must be additionally coated with a 100-150 mm wide strip of Döcke PIE mastic for bitumen shingles. The mastic must be applied with a putty knife, with a layer thickness not exceeding 0.5 mm. Any greater amount of mastic results in its leakage and blistering on the shingles. Exceptions are underlayment with an adhesive strip and self-adhesive underlayment, which do not require additional mastic coating. However, if the self-adhesive edge of the above underlayment is cut, make up for this by additional coating with a 100-150 mm wide strip of Döcke PIE mastic for bitumen shingles.

**4.1.11** The carpets should overlap in a manner that allows the water to flow down the surface without getting under the joint.



**Fig. 9. Döcke PIE underlayment layout diagram (the strips are placed according to the sequence in paragraph 4.1.2).**



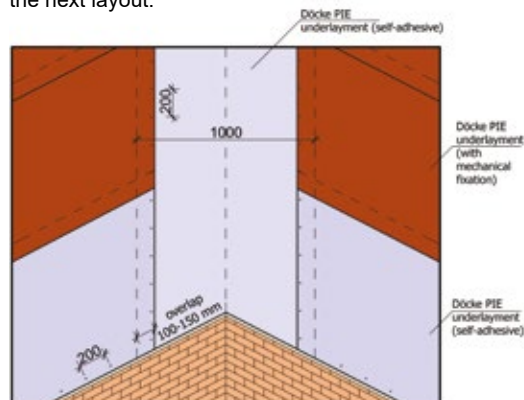
**a** - fastening Döcke PIE self-adhesive underlayment at an ambient temperature of at least + 15°C;

**b** - fastening of Döcke PIE underlayment with mechanical fixation based on polyester;

**c** - fastening Döcke PIE underlayment with mechanical fixation based on glass fiber, as well as self-adhesive Döcke PIE underlayment at an ambient temperature below +15°C.

**Fig. 10. Döcke PIE underlayment fastener arrangement diagram.**

Installation of underlayment in the roof valley is given in the next layout:



**Fig. 11. Installation of underlayment in the roof valley and on adjacent slopes.**

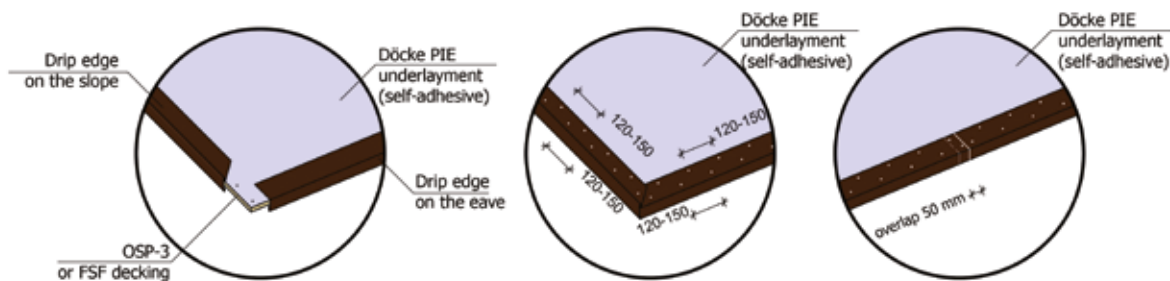
## 5. Installation of metal drip edges on eaves and slopes

Drip edges on eaves and slopes should be installed to strengthen the eaves and gable overhangs and protect the fascia board from rain and snow.

Do not forget to remove the protective films from the metal drip edges, if any, before the installation, because after installation, this will be much more difficult to do.

The drip edges on eaves and slopes should be installed after installing the brackets for the drainage system directly on the underlayment with an overlap of at least 50 mm.

The drip edges must be nailed (type 1 nails, Table 1) in a staggered pattern in 2 rows with a 120-150 mm distance between the nails in each row.



**Fig. 12. Fastening of metal drip edges on eaves and slopes.**

## 6. Installation of a Döcke PIE valley

Döcke PIE valley membrane is installed to waterproof the roof valley.

### 6.1 General requirements for the installation of Döcke PIE valley membrane:

**6.1.1** The valley membrane should be laid on the roof valley over a previously installed underlayment with a slight offset to the right or left by 20-30 mm relative to the valley centerline.

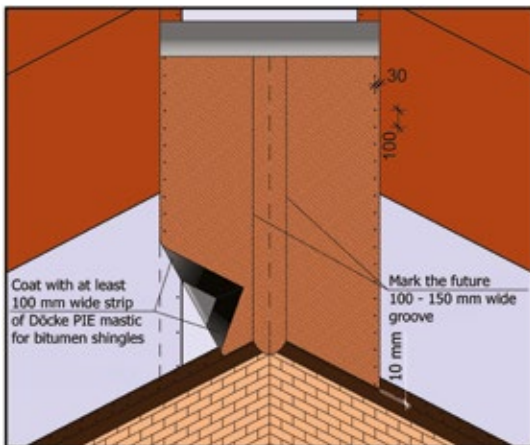
**6.1.2** Coat the perimeter of the underlayment on the backside with at least 100 mm wide strip of Döcke PIE mastic for bitumen shingles. The mastic must be applied with a putty knife, with a layer thickness not exceeding 0.5 mm. Any greater amount of mastic results in its leakage and blistering on the shingles.

**6.1.3** Döcke PIE roof valley underlayment fasteners - type 1 (Table 1) Nail the edges of the valley underlayment, spacing the nails by no more than 100 mm, 30 mm from the edges of underlayment.

**6.1.4** Use a chalk line to mark the future 100 - 150 mm wide groove in the center of the valley underlayment.

**6.1.5** Press down firmly on the valley underlayment at the junction of the two slopes to remove air pockets.

**6.1.6** If the valley underlayment cannot be installed using a single roll, make an overlap of at least 300 mm, apply Döcke PIE mastic for shingles and arrange the overlap as high as possible.



**Fig. 13. Installation of the valley underlayment**

## 7. Installation of starter/ridge shingles (starter row).

On the eaves, the Döcke PIE starter/ridge shingles must be used.

Laminated Döcke PIE roof shingles do not require the use of starter/ridge shingles on the eaves.

### 7.1 General requirements for the installation of Döcke PIE starter/ridge shingles on the eaves.

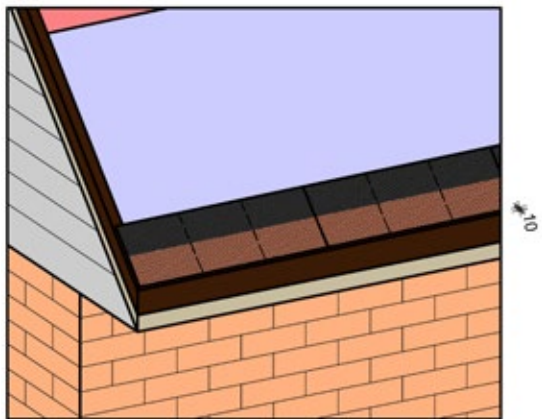
**7.1.1** Before installing the Döcke PIE starter/ridge shingles on the roof, remove film no. 1. There is no need to remove film no. 2.



**Fig. 14. The back of the Döcke PIE starter/ridge shingle.**

**7.1.2** At the eaves, an entire Döcke PIE starter/ridge shingle is used.

**7.1.3** Install the eaves shingles end-to-end, on top of the edge drip, 10 mm above its bend.

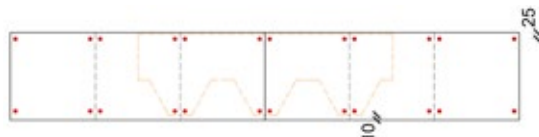


**Fig. 15. The layout of the installation of starter/ridge shingles on the eave.**

**7.1.4** Fasteners for the eaves shingles - type 1 (Table 1) The distance of the nail from the upper edge of the eaves shingle is 25 mm. The bottom row of nails, joints and perforations should be covered by the tabs of the first row of bitumen shingles.

**7.1.5** To ensure that the bottom row of nails of the eaves shingles is under the tabs of the first row of bitumen shingles, first nail the eaves shingles with the upper row of nails, then nail the first row of bitumen shingles and only then nail the eaves shingles with the lower row of nails, bending the tabs of the bitumen shingles.

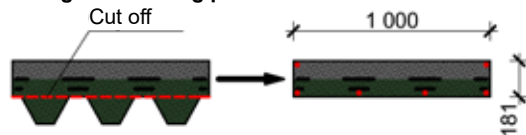




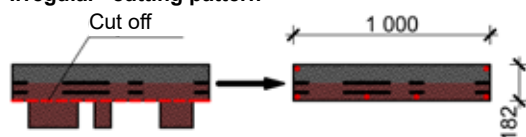
**Fig. 16. Döcke PIE starter/ridge shingle fixation at the eaves.**

**7.1.6** For the EUROPA and EURASIA series, the starter/ridge shingles of other series can be used (the color may differ), it is also allowed to make eaves shingles from regular shingles by cutting off the tabs (Fig. 17).

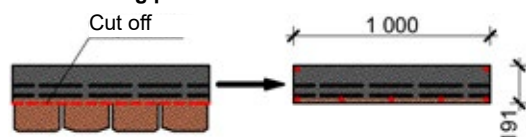
#### "Hexagonal" cutting pattern



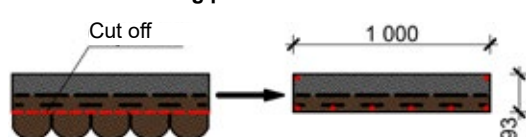
#### "Irregular" cutting pattern



#### "Slate" cutting pattern



#### "Beaver tail" cutting pattern



**Fig. 17. Diagram of making eaves shingles from regular ones and the location of the nails.**

## 8. Installation of Döcke PIE bitumen shingles

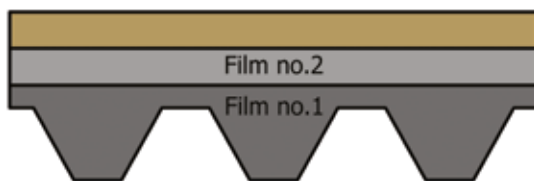
The presence of moisture and free granules inside the package and slight shedding of granules during transportation and installation is allowed by technology. During production, the granules are poured in excess and then pressed into the bitumen base. Excess granules that are not pressed into the bitumen fall off.

### 8.1 Marking the roof slope.

Before installing Döcke PIE bitumen shingles, it is necessary to mark the roof slope using a chalk line directly on the underlayment, so that the markings help orient the shingles horizontally and vertically during installation. The markup is used as a "reference" grid.

## 8.2 Requirements for the installation of Döcke PIE bitumen shingles:

**8.2.1** Remove film no. 1 before installing the shingles on the roof. There is no need to remove film no. 2.

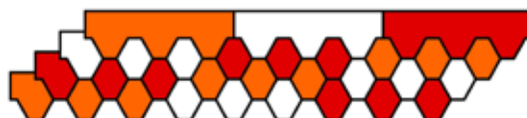


**Fig. 18. Backside of a Döcke bitumen PIE shingle.**

**8.2.2** When installing Döcke PIE laminated roof shingles, the films on the backside of the shingle do not need to be removed.

**8.2.3** To achieve the most natural and uniform color pattern of the roof, install on the same slope the shingles from the same batch.

**8.2.4** To avoid a potential difference in color shades on the roof slopes, during the installation, alternate shingles from different packages (at least three packages) according to the following plan:

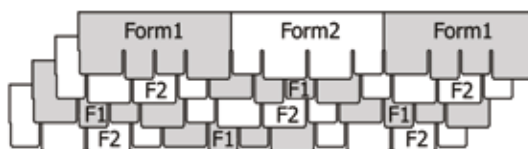


**Fig. 19. Alternating Döcke PIE bitumen shingles (on the example of a hexagonal shingle).**

Each color represents a different package of shingles.


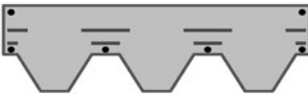
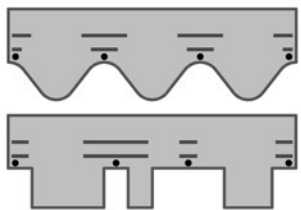
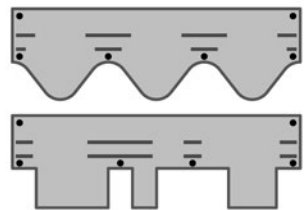
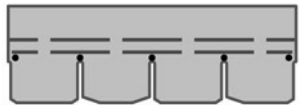
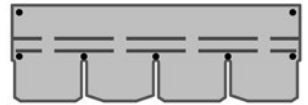
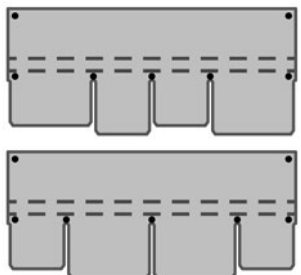
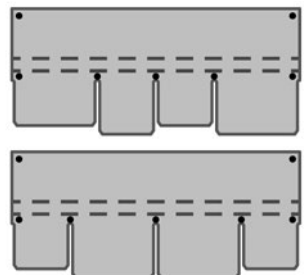
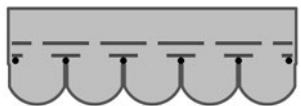
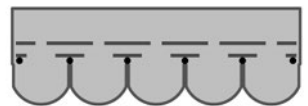

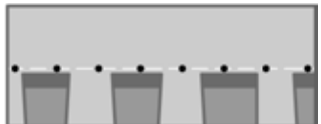
This diagram is relevant for all shingles collections, except for the "Sapporo" collection.

**8.2.5** To create a harmonious roof pattern, the Döcke PIE PREMIUM shingles from the "Sapporo" collection during installation should be alternated following this pattern:



**Fig. 20. Installation pattern for the Döcke PIE PREMIUM shingles from the "Sapporo" collection.**

8.2.6 Fasteners for Döcke PIE bitumen shingles - type 1 (Table 1). Table 2 shows nailing pattern for different roof pitches.

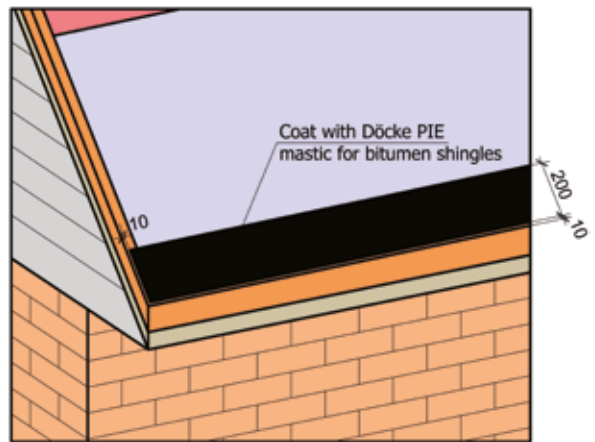
Roof slope angle	
12° to 45°	45° to 90°
<p>The shingles are nailed with four nails in the middle of the lower border of the lower adhesive strip.</p> 	<p>The shingles are nailed in the same way as when the roof slope is less than 45°, two nails are additionally driven into the upper corners of the shingle.</p> 
<p>The shingles are nailed with four nails in the middle of the lower border of the lower adhesive strip.</p> 	<p>The shingles are nailed in the same way as when the roof slope is less than 45°, two nails are additionally driven into the upper corners of the shingle.</p> 
<p>The shingle is nailed with five nails in the middle of the lower border of the lower adhesive strip.</p> 	<p>The shingles are nailed in the same way as when the roof slope is less than 45°, two nails are additionally driven into the upper corners of the shingle.</p> 
<p>The shingle is nailed with five nails in the middle of the lower border of the lower adhesive strip, additionally, two nails are driven into the upper corners of the shingle.</p> 	<p>The shingle is nailed with five nails in the middle of the lower border of the lower adhesive strip, additionally, two nails are driven into the upper corners of the shingle.</p> 
<p>The shingle is nailed with six nails in the middle of the lower border of the lower adhesive strip.</p> 	<p>The shingle is nailed with six nails in the middle of the lower border of the lower adhesive strip.</p> 
<p>The shingle is nailed with five nails along the chalk strip.</p> 	<p>The shingle is nailed with eight nails along the chalk strip.</p> 

**8.2.7** The installation of Döcke PIE bitumen shingles begins from the bottom row.

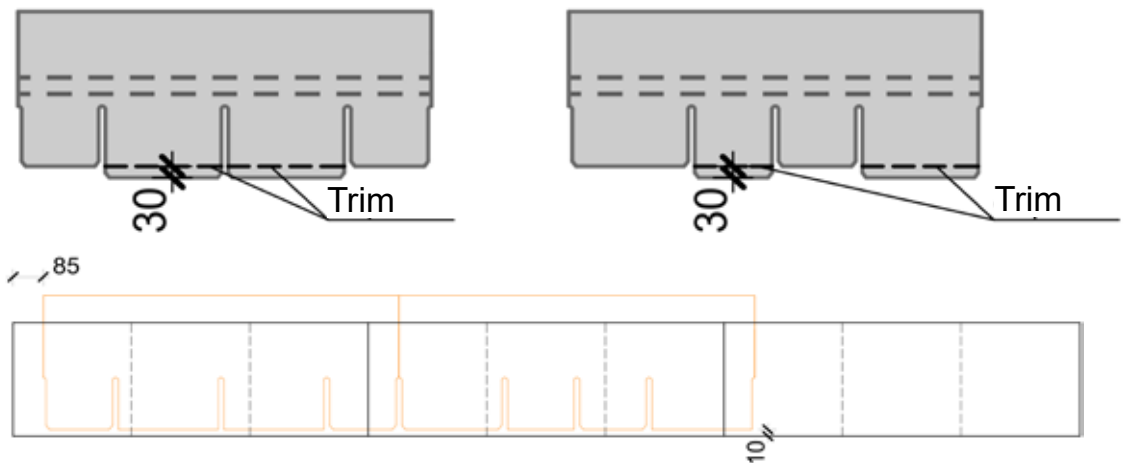
**8.2.8** Coat the back of the tabs of the first row of shingles with Döcke PIE mastic for shingles. The mastic must be applied with a putty knife, with a layer thickness not exceeding 0.5 mm. Any greater amount of mastic results in its leakage and blistering on the shingles.

**8.2.9** When installing Döcke PIE laminated shingles, cover the eaves overhang (eaves board + underlayment) with a 200 mm wide strip of Döcke PIE mastic for bitumen shingles, as there is no starter row of eaves shingles. The mastic must be applied with a putty knife, with a layer thickness not exceeding 0.5 mm. Any greater amount of mastic results in its leakage and blistering on the shingles.

**8.2.10** When installing the Döcke PIE PREMIUM shingles from the "Sapporo" collection, the first row of shingles must be trimmed as shown in Figure 22.



**Fig. 21. Sealing of eaves overhang for laying Döcke PIE laminated roof shingles.**



**Fig. 22. Trimming the tabs of the first row of shingles from the "Sapporo" collection.**

**8.2.11** On slopes shorter than 5 m, installation starts from the edge of the slope. On slopes longer than 5 m - from the middle of the slope. If the roof has a valley, the installation of bitumen shingles begins from the valley with an entire shingle.

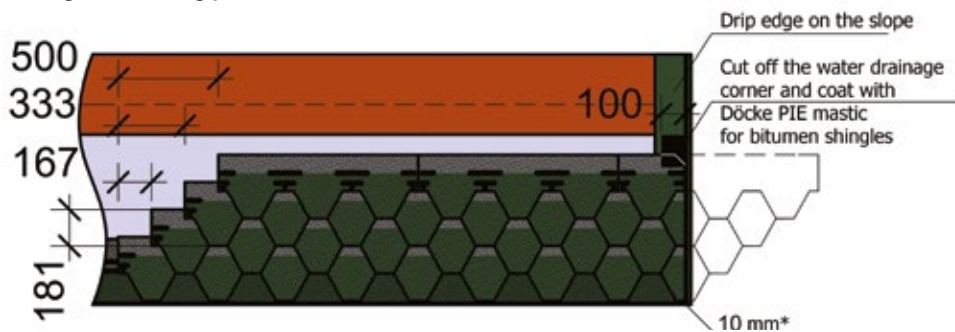
**8.2.12** The lower edge of the first row of shingles should be 10 mm away from the lower edge of the starting eaves row (Fig. 16). Döcke PIE laminated shingles must be 10 mm away from the bending of the drip edge, as they do not require the use of the starting eaves row.

**8.2.13** Cut the ends of the outermost shingles in the row to the desired length. Cut off the upper corner from the side of the trim of the outermost shingles to drain the water. Coat the edges of the shingles on the edge of

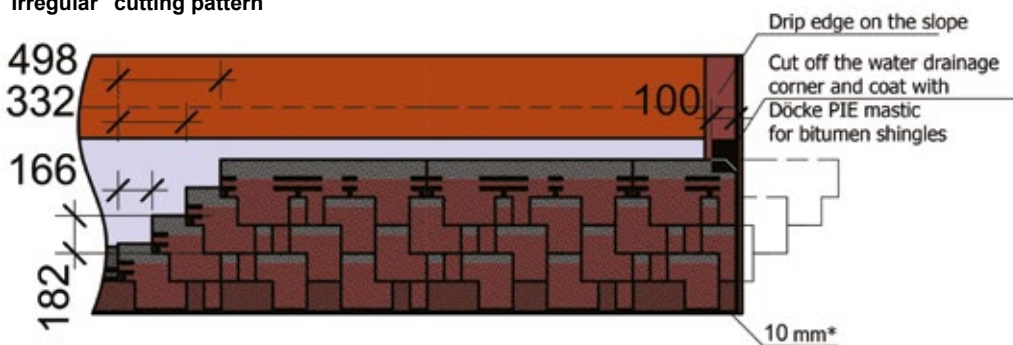
the trim with a 100 mm wide strip of Döcke PIE mastic for bitumen shingles and stick to the base (fig. 23). The mastic must be applied with a putty knife, with a layer thickness not exceeding 0.5 mm. Any greater amount of mastic results in its leakage and blistering on the shingles.

**8.2.14** The horizontal and vertical displacement of the shingles must be arranged according to the diagrams shown in Fig. 23. For the convenience of shifting, the Döcke PIE shingles with "slate", "beaver tail", and "wave" cutting patterns have vertical notches on their upper edge, which are a reference for the displacement of the next row of shingles by half a tab.

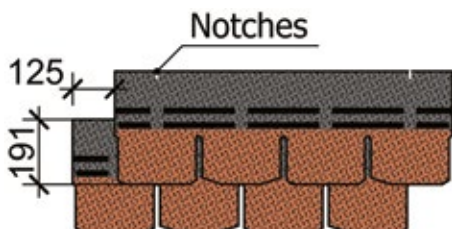
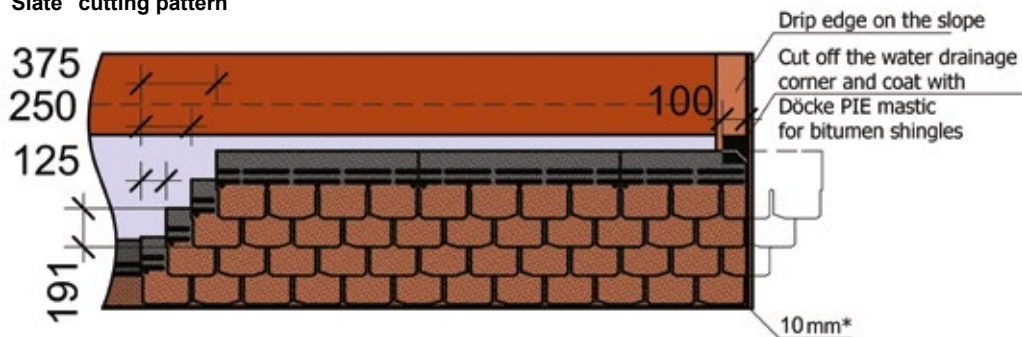
"Hexagonal" cutting pattern



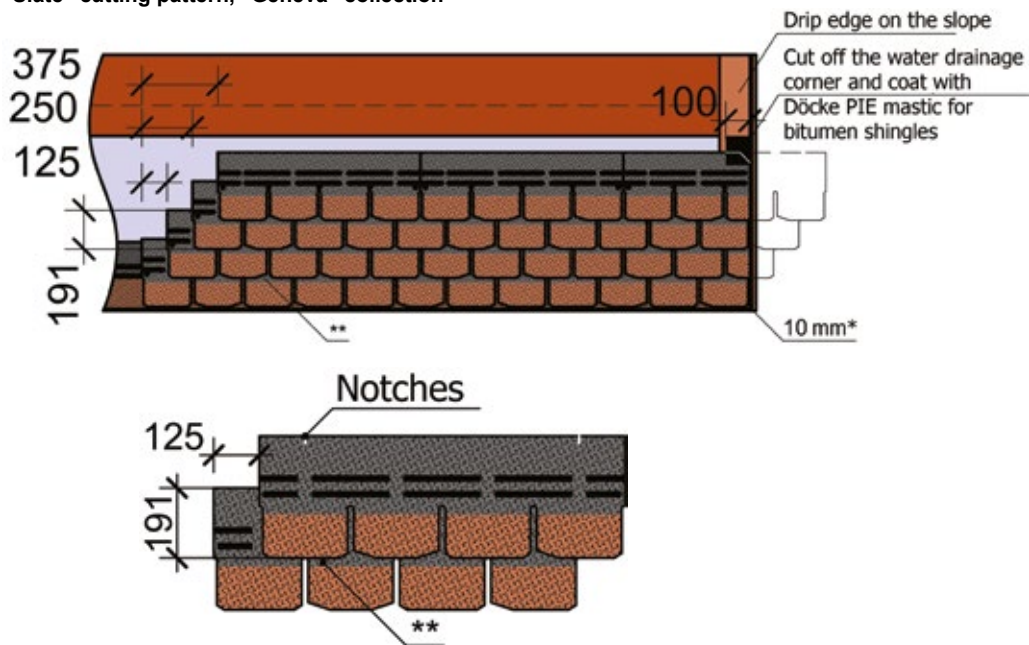
"Irregular" cutting pattern



"Slate" cutting pattern

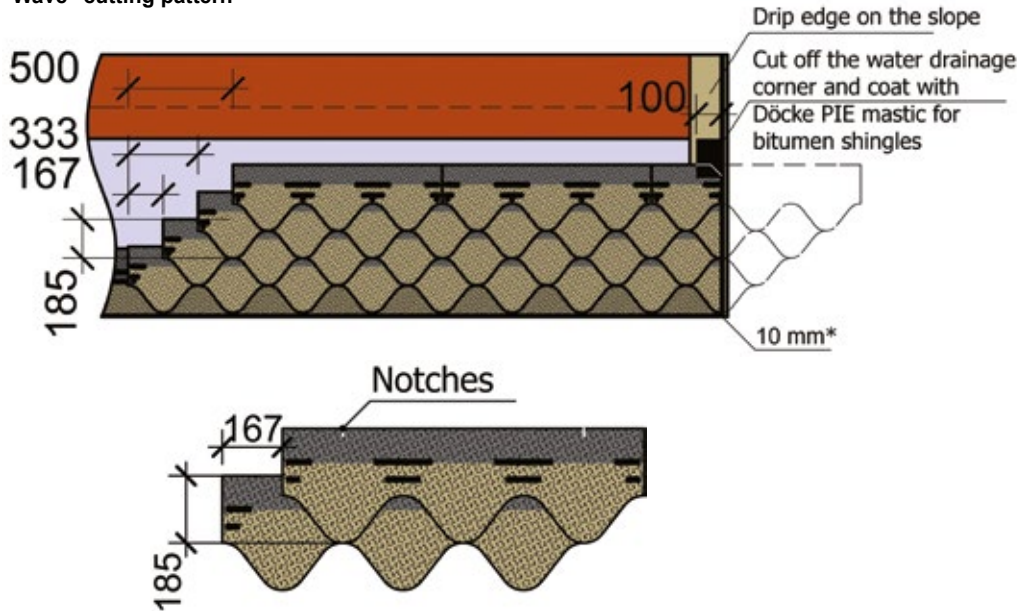


"Slate" cutting pattern, "Geneva" collection



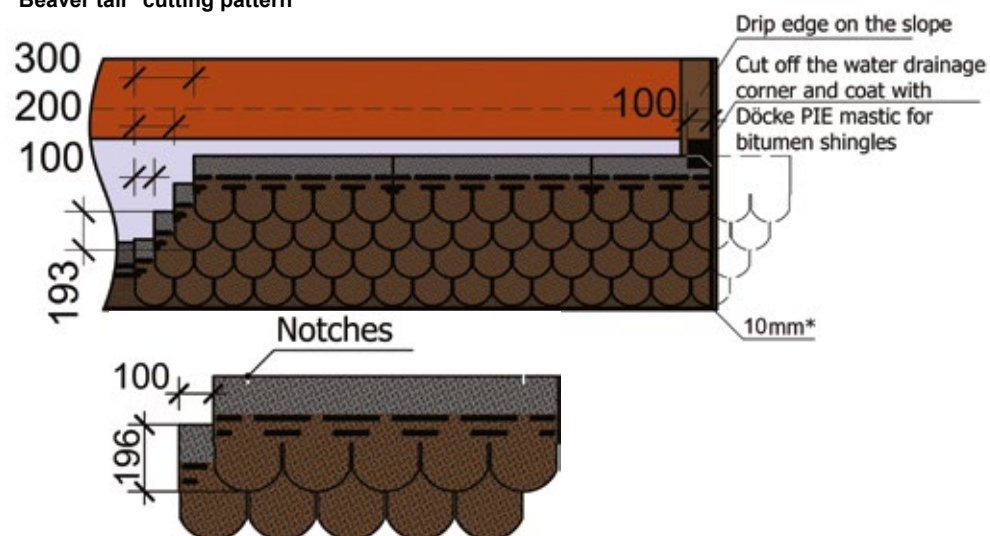
\*\* - a shadow should be visible on the installed shingles of the "Geneva" collection.

"Wave" cutting pattern

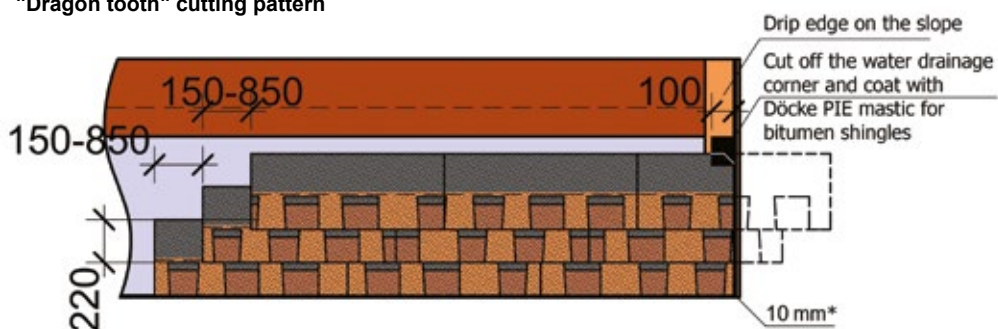




### "Beaver tail" cutting pattern



### "Dragon tooth" cutting pattern

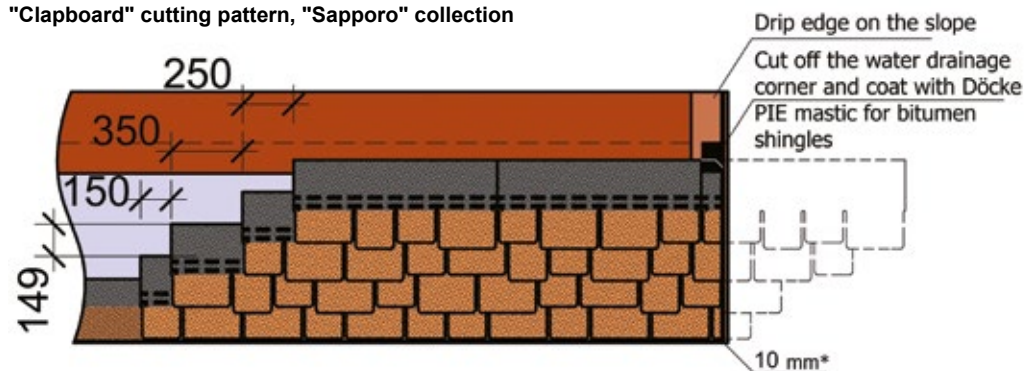


\* - зазор 10 мм между битумной черепицей и ребром торцевой планки.

**Fig. 23. Shingle displacement pattern horizontally and vertically.**

**8.2.15** The horizontal displacement of the Döcke PIE PREMIUM shingles from the "Sapporo" collection must be done in the range from 150 to 850 mm in 100 mm increments (150, 250, 350 mm, etc.). To achieve a chaotic roof pattern, the shingles should be shifted horizontally by a variable amount.

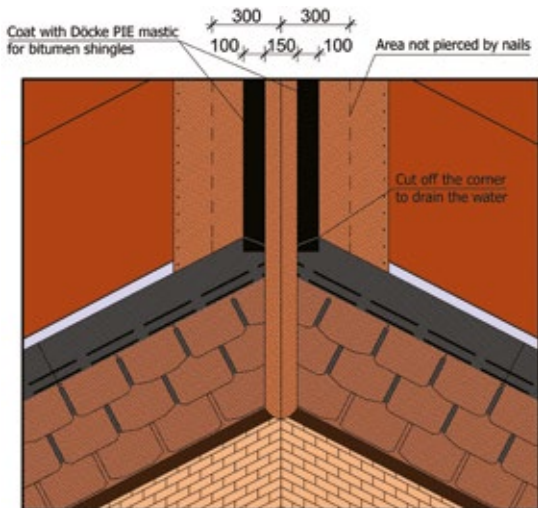
**"Clapboard" cutting pattern, "Sapporo" collection**



\* - a gap of 10 mm between the bitumen shingle and the drip edge.

**Fig. 24. Shingle displacement pattern horizontally and vertically.**

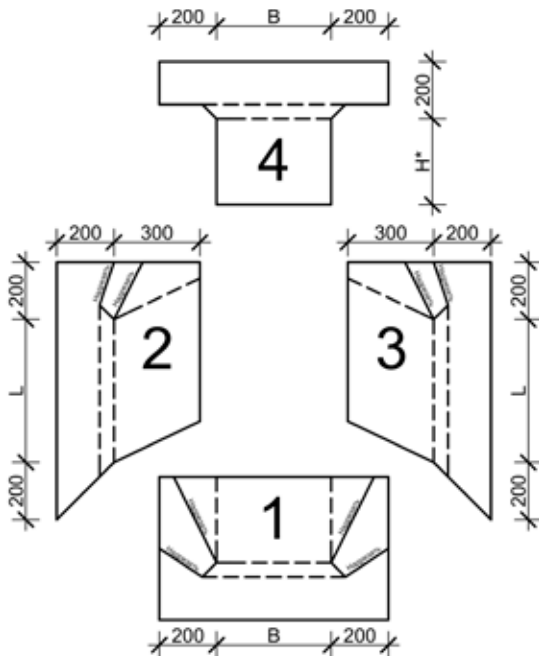
**8.2.16** If the roof has a valley, the installation of Döcke PIE bitumen shingles begins from the valley with an entire shingle. When finishing the roof valley, the shingles must be trimmed so that they do not reach the valley centerline by 50-75 mm. Cut off the corner of the outermost shingles from the valley side to drain the water and coat with a 100 mm wide strip of Döcke PIE mastic for bitumen shingles. The mastic must be applied with a putty knife, with a layer thickness not exceeding 0.5 mm. Any greater amount of mastic results in its leakage and blistering on the shingles. The area not pierced by nails to the centerline of the roof valley must be at least 300 mm.



**Fig. 25. Open roof valley.**

**8.2.17** When installing ventilation devices on the roof, follow the installation instructions of the respective manufacturer. If installing Döcke PIE roof aerators, follow the installation instructions available on the docke.ru website.

**8.2.18** When installing roof snow protectors, follow the installation instructions of the corresponding manufacturer. If installing Döcke PIE roof snow protectors, follow the installation instructions available on the docke.ru website.



B - chimney width  
L - chimney length on the slope  
\* - the value depends on the roof pitch  
Installation order: 1 → 2 → 3 → 4

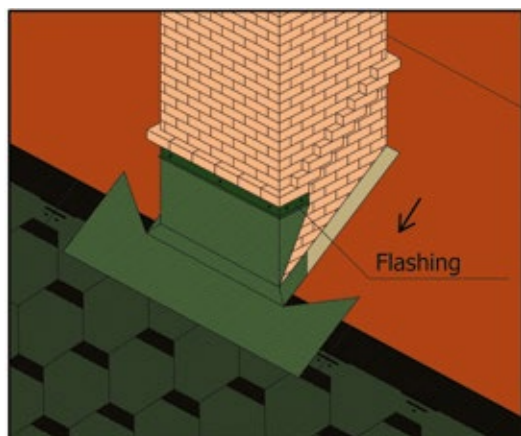
**Fig. 26. Valley underlayment flashing pieces to finish the chimney joint.**

Place flashing piece 1 over the bitumen shingles. Place flashing pieces 2, 3, 4 under the bitumen shingles. In this case, leave an 80 mm gap between the bitumen shingles and the chimney and trim. Then, an upper corner from the trim side should be cut to drain the water and coated with a Döcke PIE mastic for bitumen shingles. The mastic must be applied with a putty knife, with a layer thickness not exceeding 0.5 mm. Any greater amount of mastic results in its leakage and blistering on the shingles.

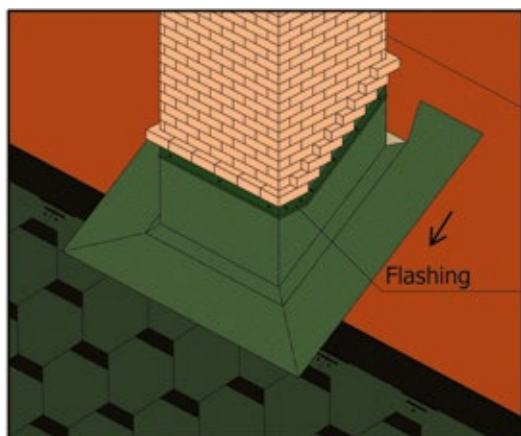
## 9. Installation and sealing of flashings

Roof joints are the places where the roof surface intersects with elements protruding above it: chimneys, walls, etc.

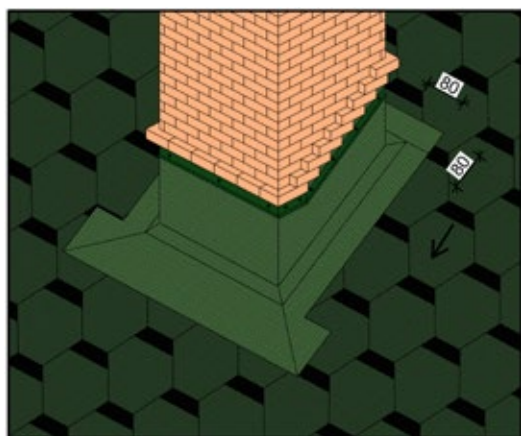
To effectively seal the joints of the roof with the chimney, cut flashing material from the Döcke PIE valley membrane:



a



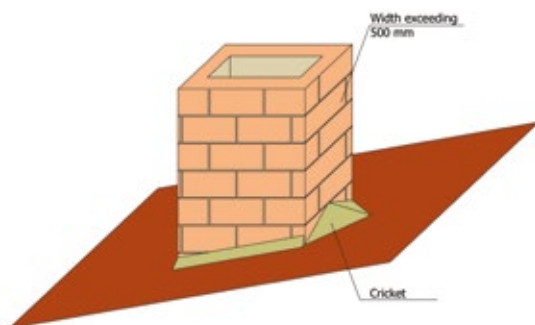
b



c

**Fig. 27. Flashing between the roofing and the chimney.**

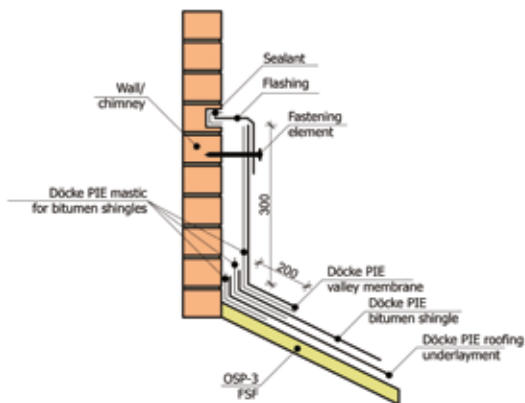
If the chimney is wider than 500 mm, a chimney cricket should be installed to prevent the accumulation of snow and water behind the chimney. In this case, two back flashing pieces are required, their shape and size depends on the size of the cricket.



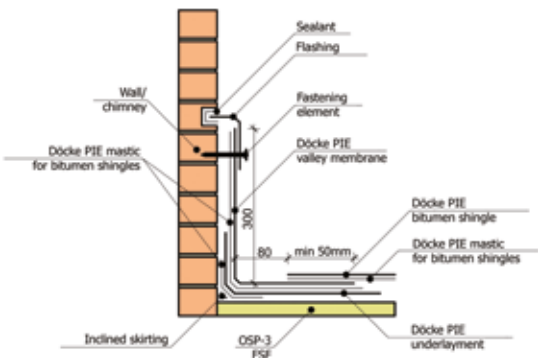
**Fig. 28. Flashing between the roofing and the chimney wider than 500 mm.**

### **9.1 Capping of the roofing joint flashing with the wall or chimney.**

To ensure a smooth transition to a vertical surface along the perimeter of the element, a 50x50 mm triangular cross-section wooden lath should be installed. In places where the transition angle exceeds 120°, the lath can be omitted. Coat the lath and the adjacent surface with Döcke PIE for bitumen shingles. Place Döcke PIE underlayment on top of the lath and the adjacent surface coated with mastic. Also coat the overlaps with Döcke PIE mastic for bitumen shingles. The mastic must be applied with a putty knife, with a layer thickness not exceeding 0.5 mm. Any greater amount of mastic results in its leakage and blistering on the shingles. If the transition angle is greater than 90°, stick the Döcke PIE bitumen shingles over the underlayment with an overlap on the vertical surface of the protruding element. If the transition angle is less than or equal to 90°, stick the Döcke PIE bitumen shingles over the valley underlayment, leaving 80 mm gap with the finish of the protruding element. Then cover the junction with a Döcke PIE valley underlayment with a vertical overlap of at least 300 mm and a horizontal overlap of at least 200 mm. Secure the resulting "pie" on top with a flashing, and coat the joints with polyurethane sealant.



**Fig. 29. The adjoining of the roof slope to the structures protruding above it at an angle exceeding 90°.**



**Рис. 30. Примыкание ската крыши к выступающим над ней конструкциям под углом не более 90° включительно.**

## 10. Hip and ridge capping

For hip and ridge capping, the Döcke PIE starter/ridge shingles should be used.

### 10.1 General requirements for the installation of Döcke PIE starter/ridge shingles on the hips and ridges:

**10.1.1** Before installing the Döcke PIE starter/ridge shingles on the roof, remove film no. 1. There is no need to remove film no. 2 (Fig. 14).

**10.1.2** The ridges of the slopes and hips must be covered with separate squares of starter/ridge shingles, obtained by dividing the shingle into three parts, using the perforations.

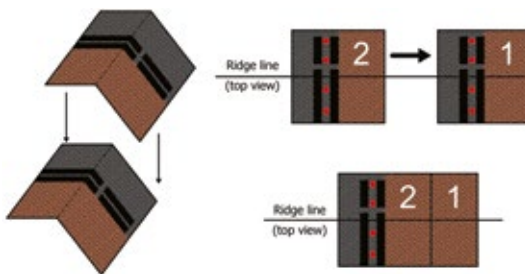
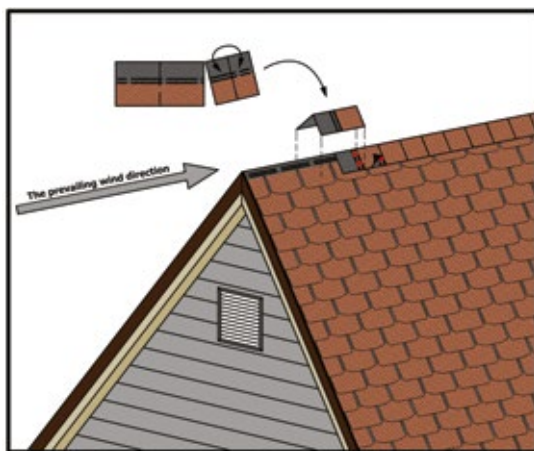
**10.1.3** On the hip, install the shingles against the prevailing wind.

**10.1.4** Install the squares of starter/ridge shingles on the ridges of the slopes from the bottom up.

**10.1.5** Install the squares with a 50% overlap over each other.

**10.1.6** Fasteners for Döcke PIE starter/ridge tiles - type 1 (Table 1). Each square (except for the last) of the starter/ridge shingle must be nailed with four nails (two on each side) so that the nail heads are covered by the edge of the next square. Secure the last square with coat of the Döcke PIE mastic for bitumen shingles. The mastic must be applied with a putty knife, with a layer thickness not exceeding 0.5 mm. Any greater amount of mastic results in its leakage and blistering on the shingles.

**10.1.7** When installing shingles on a hip aerator, follow the aerator manufacturer's instructions.

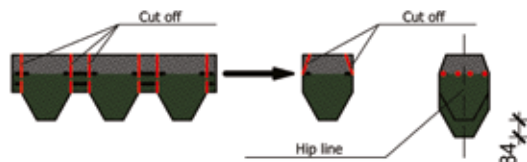


**Fig. 31. Hip and ridge capping**

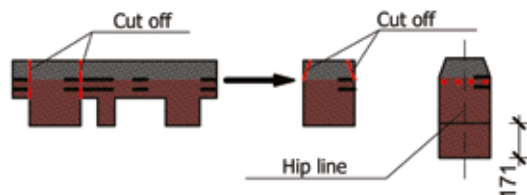


**10.1.8** For the EUROPA and EURASIA series, the starter/ridge shingles of other series can be used (the color may differ), it is also allowed to make hip shingles from regular ones by dividing a shingle into tabs and using these tabs to close the ridges and hips (Fig. 31). When using tabs of regular shingles to cover the ridges and hip in the cold season (at temperatures below +10°C), the resulting tab should be preheating with a heat gun before bending. If a ready-made hip aerator is to be used on the roof, the use of tabs of regular shingles is not allowed at the ridge, because the aerator flanges will not be completely covered.

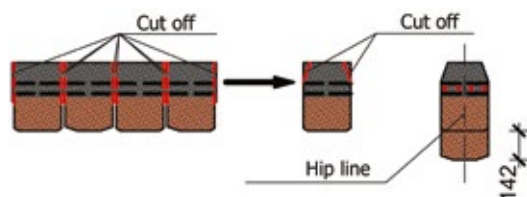
#### "Hexagonal" cutting pattern



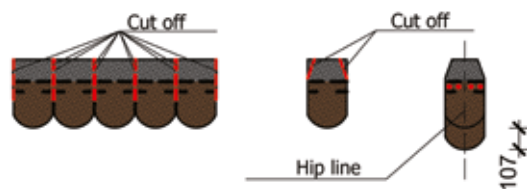
#### "Irregular" cutting pattern



#### "Slate" cutting pattern



#### "Beaver tail" cutting pattern



**Fig. 32.** Arrangement of ridges and hips with regular shingles.

## 11. Roof maintenance

**11.1** Check the condition of the roof twice a year (in spring and autumn).

**11.2** For personal safety and to protect the roofing, when moving on the roof, use roof ladders, walkways and other safety elements.

**11.3** Remove small debris, leaves and branches with a soft brush. Remove sharp-edged objects from the roof by hand.

**11.4** If there is a risk of snow falling from the roof or of its excessive accumulation, which can affect the strength of the structure, remove the snow.

In this case, leave a 10 cm thick layer of snow to protect the roofing from the snow removal tool.

**11.5** Do not use metal or sharp tools to remove garbage and snow.



Download a digital instruction





# 5 reasons to choose Döcke bitumen shingles



## 1 DÖCKE ROOFING - ONE-OF-A-KIND COLLECTIONS AND CUTTING PATTERNS

The range of Döcke's products contains one-of-a-kind patented cutting patterns that are unique on the Russian market. They are represented by designer collections, like SAPPORO, ZURICH, GENEVA, and NICE. Special mention should be made of the SAPPORO collection, distinguished by the unique size of the shingle with large tabs, up to 40% larger than the standard size. They look especially good on large houses and wide slopes. It is much easier and faster to install large shingles, thus cutting the installation costs. The assembled SAPPORO roof is a triple-layer roof, because the cutting pattern provides a shingle overlap ratio of three.



## 2 DÖCKE ROOFING - THE BEST OFFER OF SBS-MODIFIED SHINGLES

SBS-modified Döcke shingles offer a paramount bituminous roofing quality. It has increased reliability and durability and is also more resistant to weather and cold compared to conventional bitumen products. It also resists cracking and warping, both in cold and hot weather, has increased impact resistance, that is, the ability to withstand hurricanes, hail, and bird beaks, and is capable of self-healing, meaning self-restoring after scratches and bumps.

Döcke offers, perhaps, the largest selection of cutting patterns and colors of SBS-modified shingles on the Russian market. More than fifty color schemes from nine collections allowing you to implement the most daring design ideas. No other company on the Russian market offers such a choice of cutting patterns and colors of SBS-modified shingles. Döcke roofings are aesthetically appealing, reliable, and long-lasting.



## 3 DÖCKE ROOFING - WELDED TO LAST

"Bituminous shingle welding" is the hallmark of Döcke shingles. During installation, the backside of the tab is firmly glued to the adhesive strips on the front side of the underlying shingle, instantly forming a single molecular structure, which is completely identical to the process of welding glass or metal.

It ensures that the shingles are "welded" together 9 times stronger than the American and 3 times stronger than the European adhesive systems offer. You can have peace of mind about the roof of your home even in a hurricane.



## 4 THE UNIQUENESS OF DÖCKE

Döcke is the only manufacturer in Russia and Europe that offers laminated shingles from both SBS-modified and oxidized bitumen.



## 5 DÖCKE ROOFING - A REAL WARRANTY IN ALL CLIMATIC ZONES

Döcke does not just declare a warranty - it actually provides customers with a branded warranty card. The warranty conditions apply in all climatic zones, unlike many other manufacturers. The guarantee is up to 60 years for shingles, depending on the series. Döcke's warranty is a guarantee of confidence in its quality and care for each customer.

