

**Product Data Sheet**

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**VILLAS Polska, Sp. z o.o.**

**VILLAS W/400/1200**

**1. Product trade name:** Top bitumen sheet VILLAS W/400/1200

**2. Technical specification:**

PN-EN 13707+A2:2012 IDT. EN 13707:2004+A2:2009

Flexible sheets for waterproofing – Reinforced bitumen sheets for roof waterproofing –  
Definitions and characteristics

**3. Manufacturer:** VILLAS Polska, Sp. z o.o. 90-060 Łódź ul. Nawrot 4, Poland

**4. Description of the product:**

sheet with cardboard reinforcement, coated with bitumen with filler, top side is finished with  
slate, bottom side is finished with sand.

**5. Type of application:** top layer, for multilayer applications in roof waterproofing

**6. Method of application:** with bitumen glue

**7. Information for users:**

Conditions of application:

the roofing sheet should be applied on a roof when the temperature does not fall below + 5 °C. It should  
not be applied: on a wet roof surface, on a roof covered with ice, during rain or snow falls or during  
strong wind.

Conditions of usage:

waterproofing made with the use of VILLAS W/400/1200 should be done according to a technical  
project complying with binding building regulations and detailed guidelines included in the manual  
issued by the producer.

Storage:

the rolls should be stored in rooms and should be protected against moisture and exposure to sunlight  
or source of heat. The rolls should be stored on an even surface in upright position, in one layer.

Transport:

the rolls should be transported in covered trucks, in upright position in one layer, protected against  
falling over and any other damage. Rolls should be placed in a way preventing their dislocation during  
transport.

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**8. Product performance:**

|     | <b>Characteristic</b>  | <b>Test method/<br/>Classification</b> | <b>Units</b>      | <b>Value or statement</b>                                     |
|-----|--|--|-------------------|---|
| 1.  | Visible defects  | EN 1850-1                              | -----             | no visible defects  |
| 2.  | Length (*)   | EN 1848-1                              | m                 | ≥ 15,0  |
| 3.  | Width (*)  | EN 1848-1                              | m                 | ≥ 1,0   |
| 4.  | Straightness   | EN 1848-1                              | -----             | deviation: ≤30 mm / 15 m<br>or proportional for other lengths |
| 5.  | Mass   | EN 1849-1                              | kg/m <sup>2</sup> | 3,0 ± 10%   |
| 6.  | Watertightness   | EN 1928<br>Method A                    | -----             | resistant to 10 kPa   |
| 7.  | Reaction to fire   | EN 13501-1                             | -----             | Class E   |
| 8.  | Tensile properties: maximum<br>tensile strength<br>-longitudinal direction,<br>-transverse direction | EN 12311-1                             | N/50 mm           | 600 ± 200<br>400 ± 200  |
| 9.  | Tensile properties:<br>elongation<br>-longitudinal direction,<br>-transverse direction               | EN 12311-1                             | %                 | 3 ± 2<br>3 ± 2  |
| 10  | Dimensional stability  | EN 1107-1<br>Method A                  | %                 | ≤ 0,5   |
| 11. | Flexibility at low temperature   | EN 1109                                | °C                | +5 / Ø30 mm   |
| 12. | Flow resistance at elevated<br>temperature   | EN 1110                                | °C                | 70  |
| 13. | Artificial ageing by long term<br>exposure to elevated<br>temperature                                | EN 1110<br>EN 1296                     | °C                | 100 ± 10  |
| 14. | Adhesion of granules   | EN 12039                               | %                 | 20 ± 10   |
| 15. | Water vapour transmission<br>properties  | EN 13707                               | -----             | μ=20 000  |

(\*) there is a possibility to produce the sheet of different length and/or width on condition that the length and/ or width specified in tests is not lower than declared