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NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2017/0249 edition 1

This National Technical Assessment was issued pursuant to the Regulation of the Minister of Infrastructure and Construction of 17 November 2016 on national technical assessments (Journal of Laws of 2016 item 1968) by the Building Research Institute in Warsaw, at the request of:

Bella Piast Sp. z o.o. s.k.

Długa street No. 86, 05-075 Warszawa - Wesola

National Technical Assessment ITB-KOT-2017/0249 edition 1 is a positive assessment of the performance of construction products listed below for their intended use:


Finishing profiles BELLA PLAST

Validity of the National Technical Assessment

12 December 2022



DYREKTOR
Instytutu Techniki Budowlanej


dr inż. Robert Geryło

Warsaw, 12 December 2017

The document of the National Technical Assessment ITB-KOT-2017/0249 edition 1 contains 35 pages, including 2 appendices. The content of this document may only be duplicated in its entirety. Publication or dissemination in any other form of parts of the content of this National Technical Assessment is only permissible upon written arrangement with the Building Research Institute. National Technical Assessment ITB-KOT-2017/0249 edition 1 applies to products subject to the Technical Approval ITB AT-15-9164/2013.

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1. TECHNICAL DESCRIPTION OF THE PRODUCT

The subject matter of this National Technical Assessment includes BELLA PLAST finishing profiles, manufactured by Bella Piast Sp. z o.o., Długa street No. 86, 05-075 Warszawa - Wesoła, in Bella Plast production facility at Szczęśliwa street No. 51, 05-074 Długa Kościelna.

Finishing profiles subject to this National Technical Assessment, are manufactured using unplasticized polyvinyl chloride (PVC-U).

This National Technical Assessment covers the following types of products:

- a) PBELLA PLAST for External Thermal Insulation Composite Systems with Rendering:
- BP13 (6 mm / 9 mm), BP13 MINI (3 mm / 6 mm), BP13 MIDI (3 mm / 9 mm), BP13 CM (6 mm / 9 mm), BP13 MINI CM (3 mm / 6 mm), BP13 MIDI CM (3 mm / 9 mm), BP 13 MINI U CM (3 mm / 6 mm) i BP13 MINI U (3 mm / 6 mm), as per fig. A1 - reveal beads with fibreglass mesh,
 - BP14 LUX, BP14 LUX N and BP14 LUX COK, as per fig. A2 - dripnose beads with fibreglass mesh
 - BP14 ECO PLUS and BP14 PLUS N, as per fig. A3 - dripnose beads with fibreglass mesh
 - BP11 H1, BP11 H2, BP11 H3, BP11 H2N, BP11 H3N, BP11 H5, BP11 H2R, BP11 H3R and BP11 H5R, as per fig. A4 - rustication groove beads,
 - BP10 - corner beads with fibreglass mesh and BP10 S - arched corner beads with fibreglass mesh, as per fig. A5,
 - BP11 H1S, BP11 H2S, BP11 H2NS, BP11 H3S, BP11 H3NS, BP11 H5S, BP11 H2RS, BP11 H3RS and BP11 H5RS, as per fig. A6 - rustication groove beads, with fibreglass mesh,
 - BP15, as per fig. A7 - movement (expansion) bead, with fibreglass mesh,
 - BP16, as per fig. A8 - movement (expansion) bead, with fibreglass mesh,
 - BP20, as per fig. A9 - under-sill movement (expansion) trim, with fibreglass mesh,
 - BP22, as per fig. A10 - finishing profile with fibreglass mesh,
 - BP4 S as per fig. A11 - corner beads with fibreglass mesh
 - BP11 ŁH1, BP11 ŁH2, BP11 ŁH3 i BP11 ŁH5, as per fig. A12 - connectors for rustication profiles,
 - BP11 KH3WEW, as per fig. A13 - corner beads, internal, for rustication profiles: BP11 H3, BP11 H3S, BP11 H3NS and BP11 H3N,
 - BP11 KH3ZEW, as per fig. A14 - corner beads, external, for rustication profiles: BP11 H3, BP11 H3S, BP11 H3NS and BP11 H3N,
 - BP11 MINI, as per fig. A15 - rustication groove bead, with fibreglass mesh,
- b) BELLA PLAST finishing profiles for dry walls:
- BP2, as per fig. A16 - straight corner bead, for connecting and reinforcing dry walls interfaced at 90° angle,

- BP3, as per fig. A17 - arched corner bead, for connecting and reinforcing dry walls interfaced at 90° angle in oval shapes of dry walls,
 - BP4, as per fig. A18 - all-purpose corner bead, for connecting and reinforcing dry walls interfaced at 0° to 180° angle,
 - BP5, as per fig. A19 - J-type finishing profile for reinforcing and aligning dry wall edges,
 - BP8, as per fig. A20 - straight radial corner bead, for connecting and reinforcing dry walls interfaced at 90° angle,
 - BP9, as per fig. A21 - straight arched corner bead, for connecting and reinforcing dry walls interfaced at 90° angle,
- c) BELLA PLAST finishing profiles, sealing and protecting, for indoor installation:
- BP12 (6 mm / 9 mm), BP12 MINI (3 mm / 6 mm), BP12 MIDI (3 mm / 9 mm), BP12 CM (6 mm / 9 mm), BP12 MINI CM (3 mm / 6 mm), BP12 MIDI CM (3 mm / 9 mm), BP12 MINI U CM (3 mm / 6 mm) and BP12 MINI U (3 mm / 6 mm), as per fig. A22 - reveal beads,
 - BP23, BP23 S and BP24, as per fig. A23 - profile with 4 mm ridge, for reinforcing and for 90° corners.
- d) Cross profiles for rustication profiles: BP11 MINI SCC, BP11 MINI CC, BP11 H1CC, BP11 H1SCC, BP11 H2CC, BP11 H2SCC, BP11 H3CC, BP11 H3SCC, BP11 H5CC and BP11 H5SCC, as per fig. A24 and A25.

Profile arms are perforated or perforated with strips of fibreglass mesh. Mesh of concealed profiles is made of fibreglass mesh, connected to the profile by ultrasonic welding technique and/or assembly, whereby the fibreglass mesh is zipped between PVC layers and/or by gluing using hot melt adhesive.

The shape and dimensions of BELLA PLAST finishing elements are presented in Appendix A. Standard lengths of BELLA PLAST finishing profiles are 150, 200, 250 and 300 cm. Profiles of different lengths may also be manufactured, upon prior arrangement between the manufacturer and the customer.

The deviations of intolerable profile dimensions correspond to the roughness class c as per PN-EN 22768-1:1999.

The technical description of the materials and components of which the products subject to this National Technical Assessment are made and the quality of their performance is provided in Appendix B. ²

2. INTENDED USE OF THE PRODUCT

BELLA PLAST finishing profiles are intended for:

- reinforcement and protection of edges and corners of walls, treatment of window and door openings as well as expansion joints, in jointless thermal insulation systems for external walls of buildings; products can be used inside and outside buildings - as in case of profiles according to p. 1, a and d),
- implementation and strengthening plasterboard joints; products can be used inside buildings - as in case of profiles according to p. 1, b),

- treatment of window openings and reinforcement of corners, inside buildings - as in case of profiles according to p. 1, c).

Products subject to this National Technical Assessment can be used in the covering of gypsum, lime and cement plasters as well as adhesive mortars for thermal insulation materials.

BELLA PLAST finishing profiles with mesh can be used for thermal insulation of exterior walls of buildings using jointless method. The mesh must not be used as part of the reinforcement layer of the thermal insulation system.

BELLA PLAST finishing profiles should be used in accordance with the technical design, drafted for a specific building structure, including:

- Polish standards as well as technical and construction regulations, in particular the Regulation Minister of Infrastructure of 12 April 2002 on the technical conditions to be met by buildings and their location (consolidated text: Journal of Laws of 2015, item 1442),
- provisions of this National Technical Assessment,
- instructions on the use of products drafted by the manufacturer.

3. PERFORMANCE OF THE PRODUCT AS WELL AS THE METHOD OF PERFORMANCE ASSESSMENT

3.1. Performance of the product

3.1.1. Rectilinearity. Deviation from rectilinearity of the profiles is not greater than 0.5 mm - in case of profiles with a length of 2 500 mm or less and not greater than 1.0 mm - in case of profiles with a length above 2 500 mm.

3.1.2. Vicat softening temperature for PVC-U products. Vicat softening temperature of PVC-U profiles is 70 °C or higher (heating agent - silicone oil).

3.1.3. Charpy impact strength for PVC-U products. Charpy impact strength for PVC-U profiles is 8 kJ/m² or higher.

3.2. Methods used for performance assessment

3.2.1. Rectilinearity. Rectilinearity is assessed in accordance with PN-EN 13658-1:2009.

3.2.2. Vicat softening temperature. Vicat softening temperature test is performed according to PN-EN ISO 306:2014, using the B50 method.

3.2.3. Charpy impact strength. Charpy impact strength test is performed according to PN-EN ISO 179-1:2010, using the 1eA method, on single notched samples, cut from the elements of the products made of unplasticized polyvinyl chloride (PVC-U), along the direction of extrusion.

4. PACKAGING, TRANSPORT AND STORAGE, AND THE METHOD OF MARKING THE PRODUCT

The products subject to this National Technical Assessment should be delivered in original manufacturer's packaging as well as stored and transported in a manner which ensures that their technical properties remain unchanged.

The way of marking the product with a construction mark should be consistent with the regulation of the Minister of Infrastructure and Construction of 17 November 2016 on the method of declaring the performance of construction products and the method of marking them with a construction mark (Journal of Laws of 2016, item 1966).

The marking of a product with a construction mark should be provided along with the following information:

- the last two digits of the year in which the construction mark was placed on construction product for the first time,
- the name and address of the registered office of the manufacturer or identification mark for unambiguous identification the name and address of the registered office of the manufacturer,
- the name and designation of the type of construction product,
- the number and year of release the national technical assessment, according to which the performance was declared (ITB-KOT-2017/0249 issue 1),
- the number of the national declaration of performance,
- the grade or class of declared performance properties,
- the address of manufacturer's website address if the national declaration of performance is made available on it.

Along with the national declaration of performance, a material safety data sheet and/or information on hazardous substances contained in the construction product should be provided, as referred to in art. 31 or art. 33 of the Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency.

Also, the marking of a construction product that is a hazardous mixture according to REACH should conform with the requirements of the Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP), amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. ⁵

5. ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE

5.1. National system for assessment and verification of constancy of performance

As per the Regulation of Minister of Infrastructure and Construction of 17 November 2016 on the method of declaring the performance of construction products and the method of marking them with a construction mark (Journal of Laws of 2016, item 1966), the applicable system for assessment and verification of constancy of performance is system 4.

5.2. Type examination

The performance properties, assessed in p. 3, constitute a type examination of the product until changes in raw materials, ingredients, production line or production facility occur.

5.3. Factory production control

The manufacturer should pursue a system of factory production control in the production facility. All elements of such system, requirements and provisions adopted by the manufacturer should be documented in a systematic manner in the form of a set of rules and procedures, including records from of examinations. The factory production control should match the production technology and ensure that the declared performance of the product is maintained in its serial production.

Factory production control covers specification and verification of raw materials and components, verification and examination in the production process as well as verification examinations (as per p. 5.4) conducted by the Manufacturer according to the prescribed test plan and in accordance with the rules and procedures specified in the documentation of factory production control.

The results of the production control should be systematically recorded. The records should certify that the products meet the criteria of assessment and verification of constancy of performance. Individual products or lots of products and related production details must be fully identifiable and reproducible.

5.4. Verification examinations

5.4.1. Test program. Test program includes:

- a) current tests,
- b) periodical tests.

5.4.2. Current tests. Ongoing tests include verification of:

- a) the shape and dimensions of the product,
- b) quality of workmanship,
- c) rectilinearity.

5.4.3. Periodical tests. Periodical tests include verification of Vicat softening temperature.

5.5. Frequency of tests

Ongoing tests should be carried in accordance with the prescribed test plan, but not less frequently than every batch of products. Size of the batch should be specified in the documentation of factory production control.

Periodical tests should be carried out at least every three years.

6. INSTRUCTION

6.1. National Technical Assessment ITB-KOT-2017/0249 edition 1 is a positive assessment of the performance of these essential properties of BELLA PLAST finishing profiles, which, according to the intended use, resulting from the provisions of the Assessment, affect the fulfilment of basic requirements by construction facilities in which the product will be applied.

6.2. National Technical Assessment ITB-KOT-2017/0249 edition 1 is not an authorisation for marking a construction product with a construction mark.

In accordance with the Act of 16 April 2004 on construction products with subsequent amendments (consolidated text: Journal of Laws of 2016, item 1570) products subject to this National Technical Assessment, may be placed on the market or made available on the domestic market, providing that the manufacturer assessed and verified constancy of performance, drafted a national declaration of performance in accordance with the National Technical Assessment ITB-KOT-2017/0249 edition 1 and labelled the products with a construction mark in accordance with applicable regulations.

6.3. National Technical Assessment ITB-KOT-2017/0249 edition 1 does not violate the rights resulting from the regulations on the protection of industrial property, in particular the Act of 30 June 2000 - Industrial Property Law (consolidated text: Journal of Laws of 2013, item 1410, with subsequent amendments). Ensuring these rights is one of the obligations of the beneficiaries of this National Technical Assessment of the Building Research Institute.

6.4. Building Research Institute, issuing the National Technical Assessment, is not responsible for any infringement of exclusive and acquired rights.

6.5. This National Technical Assessment does not exempt the manufacturer of the products from their responsibility regarding proper quality of the products, and the contractors of construction works from the responsibility regarding proper application of the products.

6.6. The validity of this National Technical Assessment may be extended for subsequent periods of 5 years or less.

7. LIST OF DOCUMENTS USED IN THE PROCEDURE

7.1. Reports, test reports, assessments, classifications

- 1) LZM00-01271/17/Z00NZM. BELLA PLAST profile examination report, Construction Materials Engineering Department, Building Research Institute, Warsaw, 2017.
- 2) 1134/13/Z00NK. Research work and technical evaluation regarding BELLA PLAST finishing profiles, Building Elements Engineering Department, Building Research Institute, Warsaw, 2013.
- 3) LK00-1134/13/Z00NK. Report on examination of BELLA PLAST finishing profiles, Building Elements Engineering Department, Building Research Institute, Warsaw, 2013.

7.2. Related standards and documentation

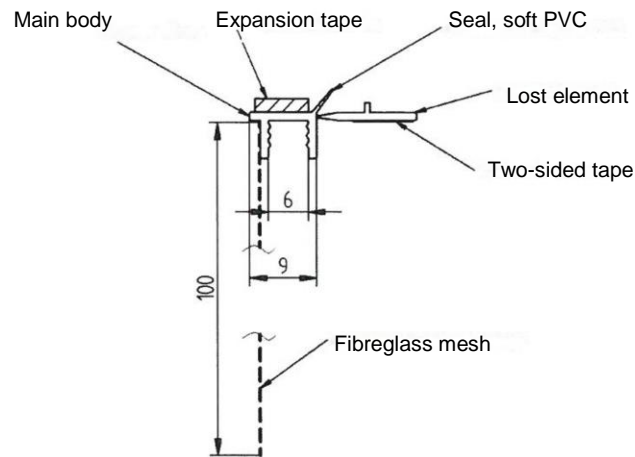
PN-EN 13658-1:2009	<i>Metal lath and beads. Definitions, requirements and test methods Part 1: Indoor plaster</i>
PN-EN ISO 306:2014	<i>Plastics: Thermo-plastic material. Determination of Vicat softening temperature (VST)</i>
PN-EN 22768-1:1999	<i>General tolerances. Tolerances for linear and angular dimensions without individual tolerance indications</i>
PN-EN ISO 179-1:2010	<i>Plastics. Determination of Charpy impact properties. Part 1: Non-instrumented impact test</i>
PN-EN ISO 1183-1:2013	<i>Plastics. Methods for determining the density of non-cellular plastics. Part 1: Immersion method, liquid pyknometer method and titration method</i>
PN-EN ISO 845:2010	<i>Cellular plastics and rubbers. Determination of apparent density</i>
PN-EN 14716:2008	<i>Stretched ceilings. Requirements and test methods</i>
AT-15-9164/2013	<i>BELLA PLAST finishing profiles.</i>

APPENDICES

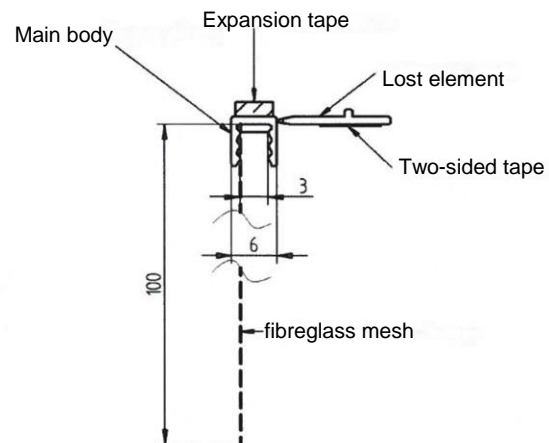
Appendix A.	Shape and dimensions of BELLA PLAST finishing profiles	10
Appendix B.	Materials and components as well as quality of workmanship, BELLA PLAST finishing profiles	35

Appendix A.

a)



b)



c)

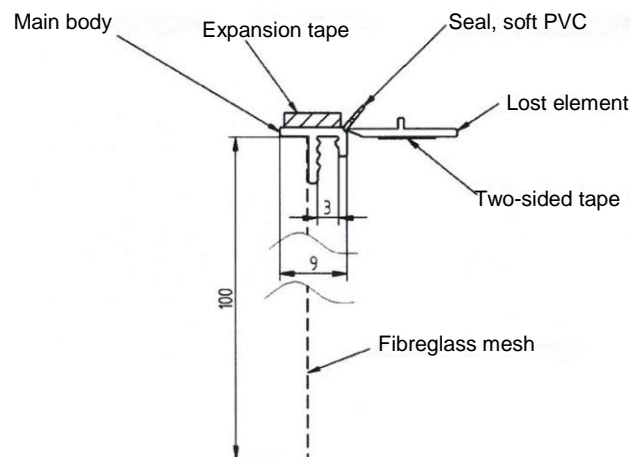
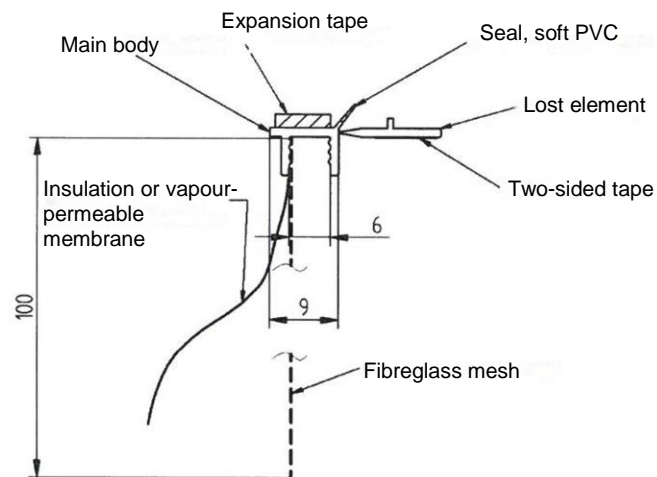
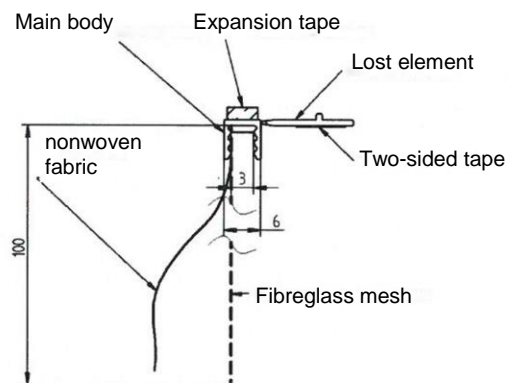


Figure A1. Profiles BP13 (6 mm / 9 mm) (a), BP13 MINI (3 mm / 6 mm) (b), BP13 MIDI (3 mm / 9 mm) (c), BP13 CM (6 mm / 9 mm) (d), BP13 MINI CM (3 mm / 6 mm) (e), BP13 MIDI CM (3 mm / 9 mm) (f), BP 13 MINI U CM (3 mm / 6 mm) (g), BP13 MINI U (3 mm / 6 mm) (h)

d)



e)



f)

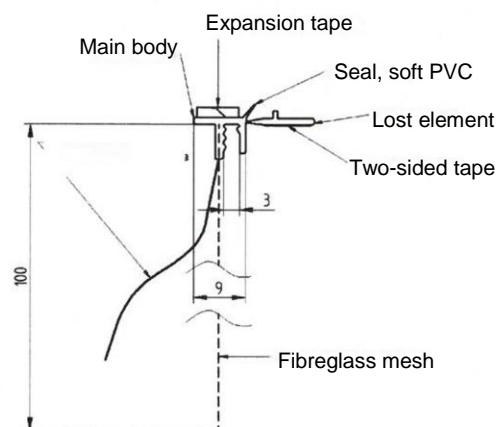
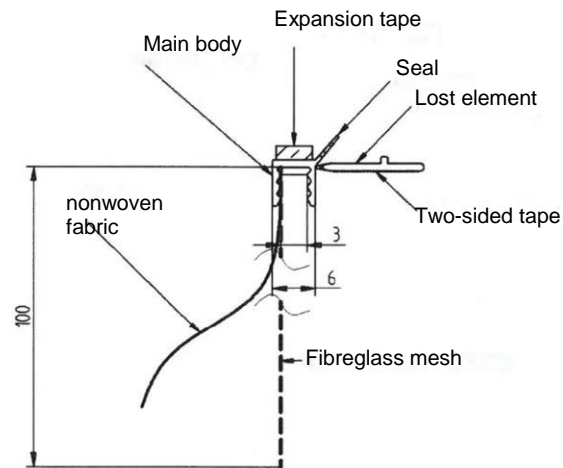


Figure A1. Profiles BP13 (6 mm / 9 mm) (a), BP13 MINI (3 mm / 6 mm) (b), BP13 MIDI (3 mm / 9 mm) (c), BP13 CM (6 mm / 9 mm) (d), BP13 MINI CM (3 mm / 6 mm) (e), BP13 MIDI CM (3 mm / 9 mm) (f), BP 13 MINI U CM (3 mm / 6 mm) (g), BP13 MINI U (3 mm / 6 mm) (h), continued

g)



h)

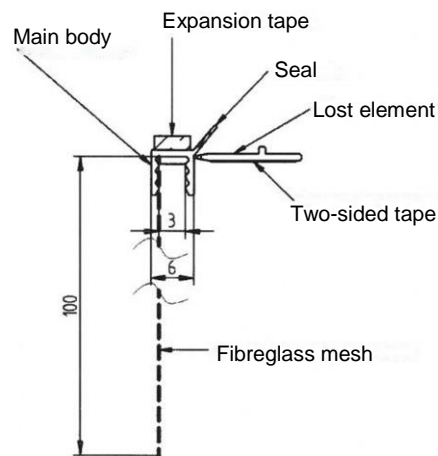
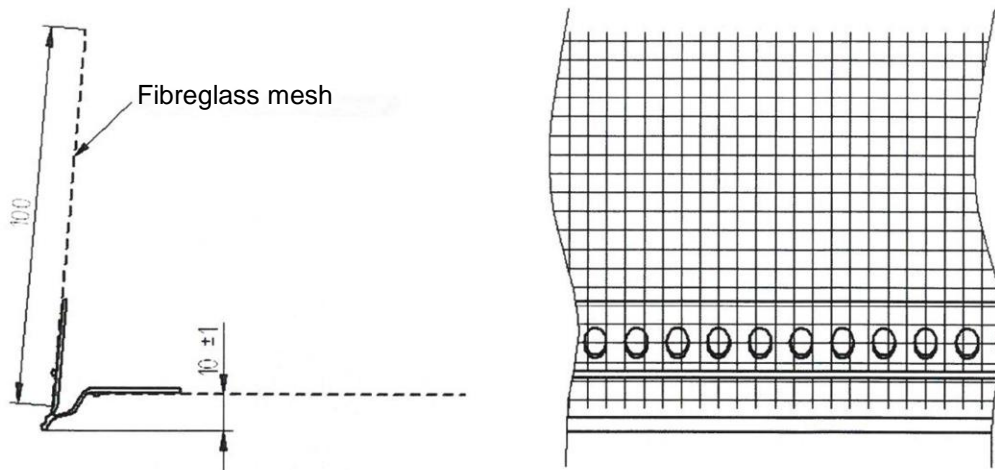
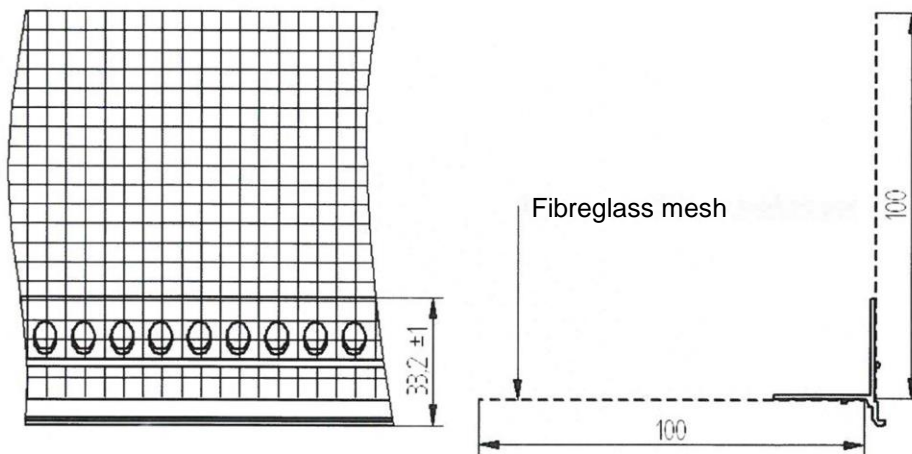


Figure A1. Profiles BP13 (6 mm / 9 mm) (a), BP13 MINI (3 mm / 6 mm) (b), BP13 MIDI (3 mm / 9 mm) (c), BP13 CM (6 mm / 9 mm) (d), BP13 MINI CM (3 mm / 6 mm) (e), BP13 MIDI CM (3 mm / 9 mm) (f), BP 13 MINI U CM (3 mm / 6 mm) (g), BP13 MINI U (3 mm / 6 mm) (h), continued

a)



b)



c)

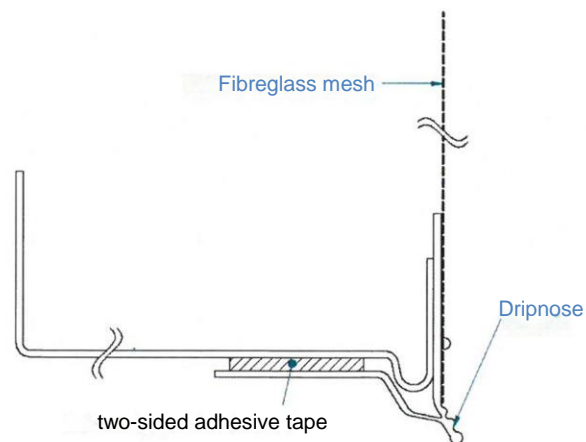
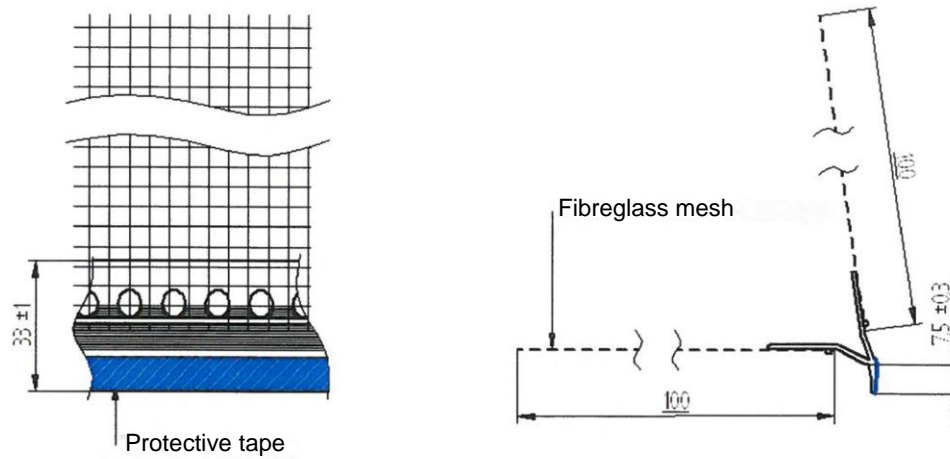


Figure A2. Profiles BP14 LUX (a), BP14 LUX N (b) and BP14 LUX COK (c)

a)



b)

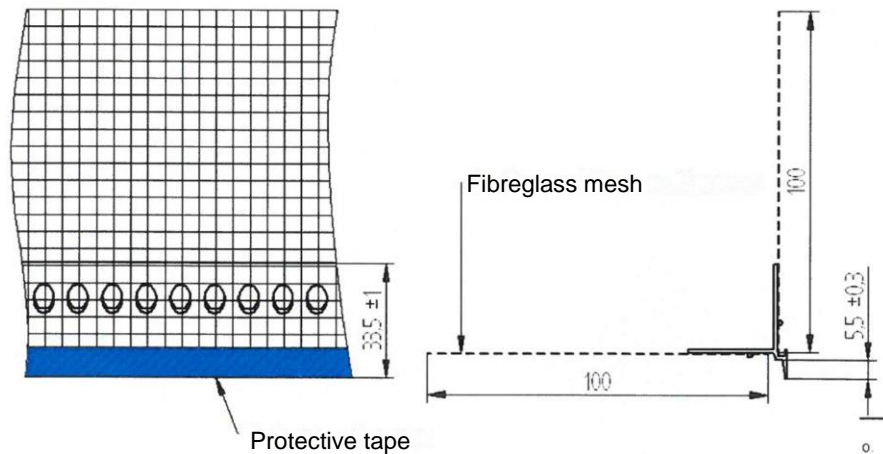


Figure A3. Profiles BP14 ECO PLUS (a) and BP14 PLUS N (b)

(protective tape colour - as per manufacturer's colour chart; protective tape (foil) for protection, during installation, of parts of the profile that remain visible/exposed after installation is completed)

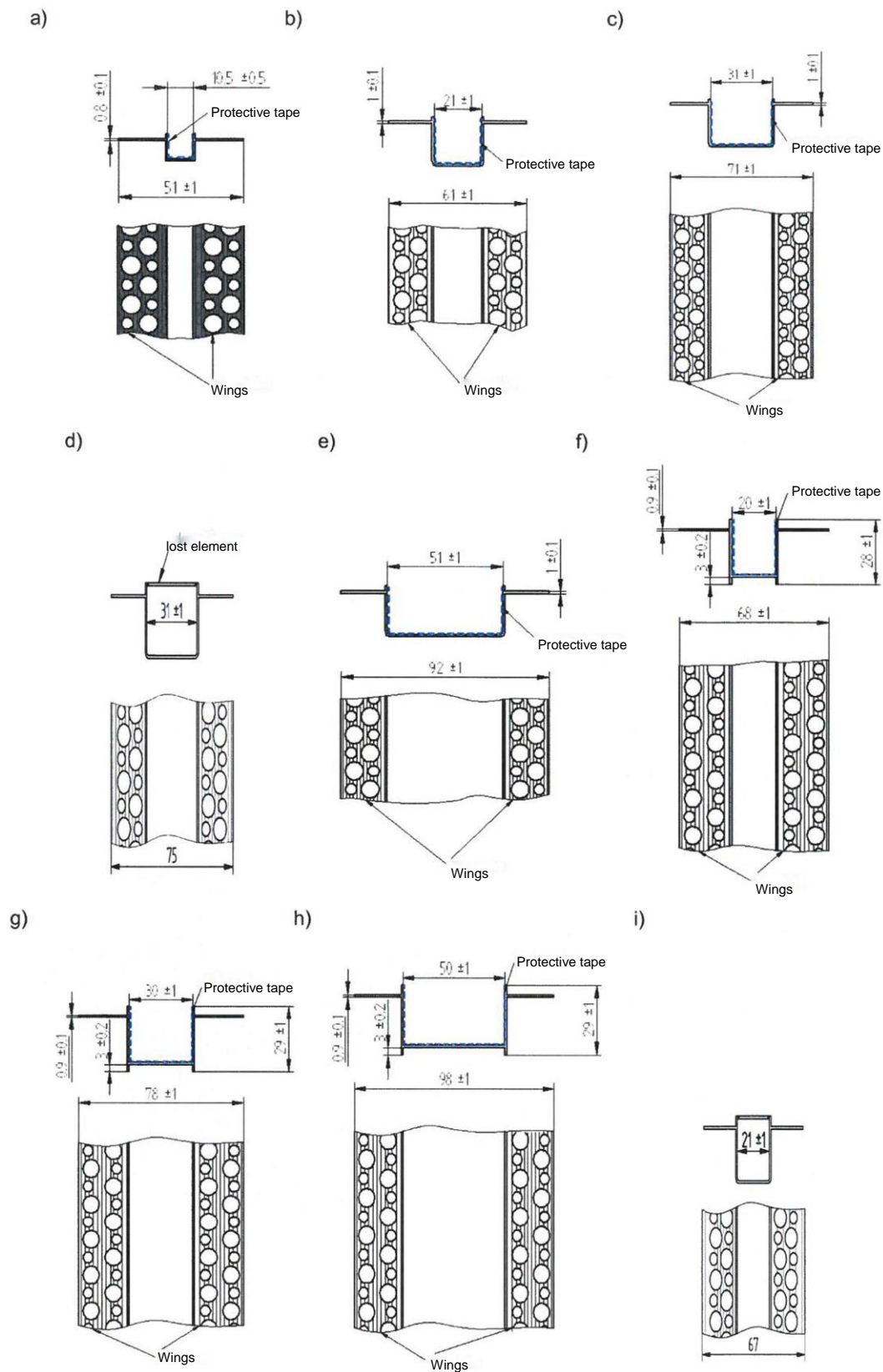
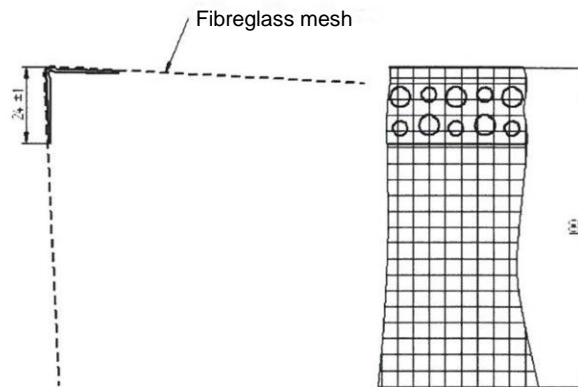


Figure A4. Profiles BP11 H1 (a), BP11 H2 (b), BP11 H3 (c), BP11 H3N (d), BP11 H5 (e), BP11 H2R (f), BP11 H3R (g), BP11 H5R (h) BP11 H2N (i) (protective tape - same as above)

a)



b)

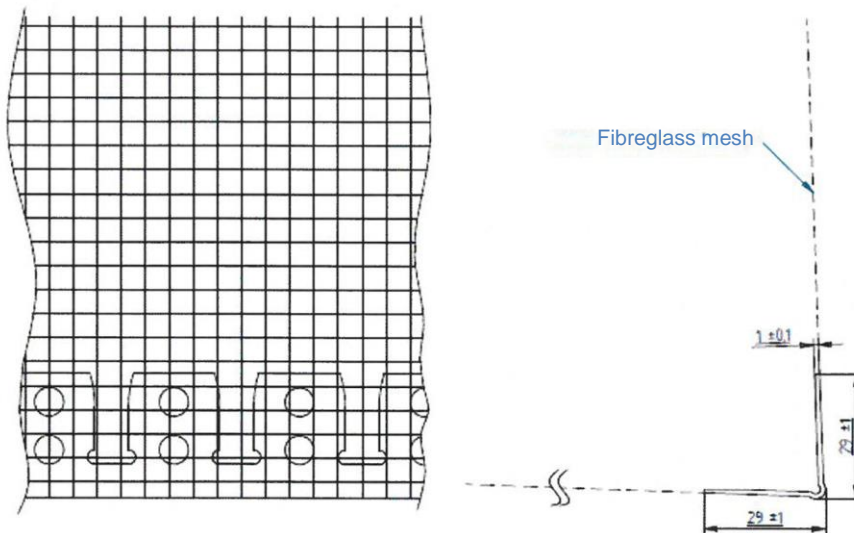
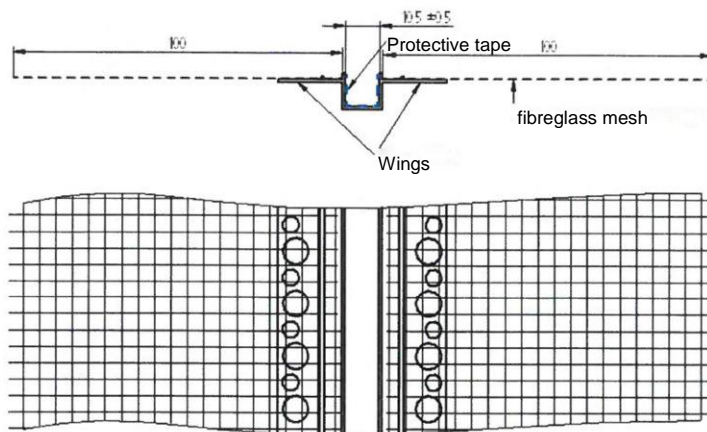
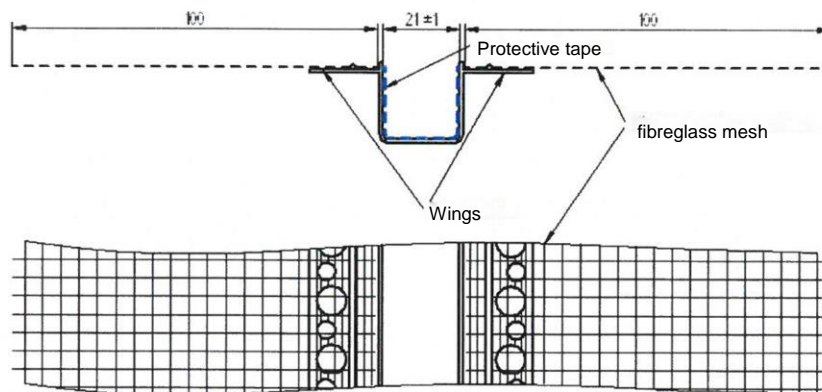


Figure A5. BP10 - corner bead (a) and BP10 S corner bead with fibreglass mesh (b)
(protective tape colour - as per manufacturer's colour chart; protective tape (foil) for protection, during installation, of parts of the profile that remain visible/exposed after installation is completed)

a)



b)



c)

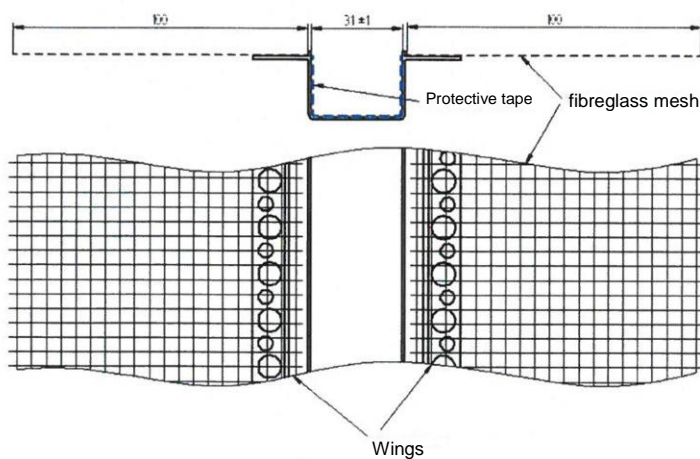
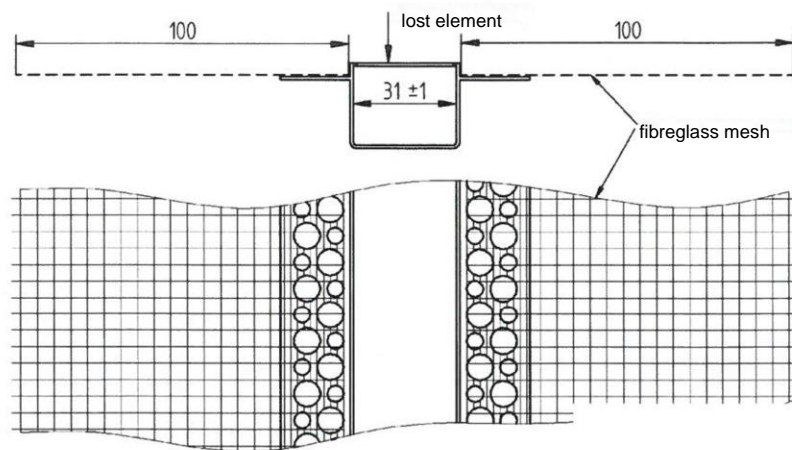


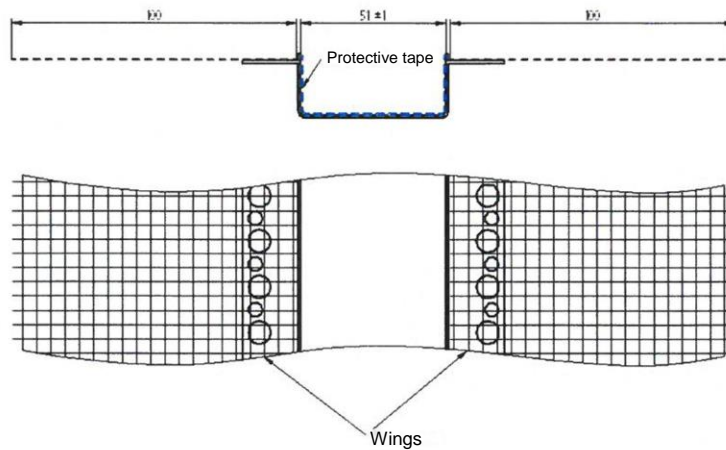
Figure A6. Profiles BP11 H1S (a), BP11 H2S (b), BP11 H3S (c), BP11 H3NS (d), BP11 H5S (e), BP11 H2RS (f), BP11 H3RS (g) and BP11 H5RS (h)

(protective tape colour - as per manufacturer's colour chart; protective tape (foil) for protection, during installation, of parts of the profile that remain visible/exposed after installation is completed)

d)



e)



f)

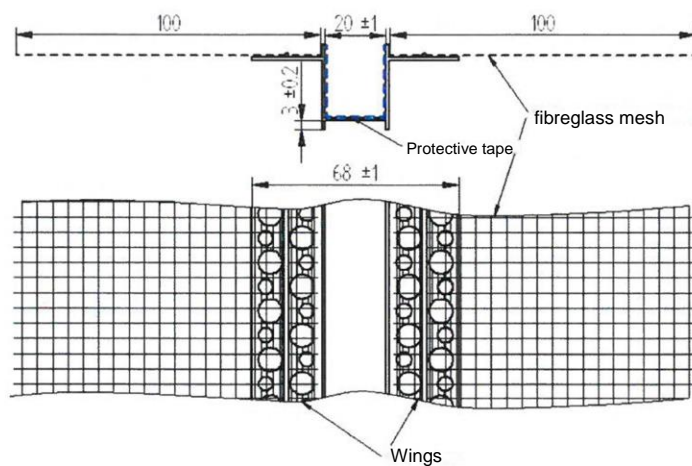
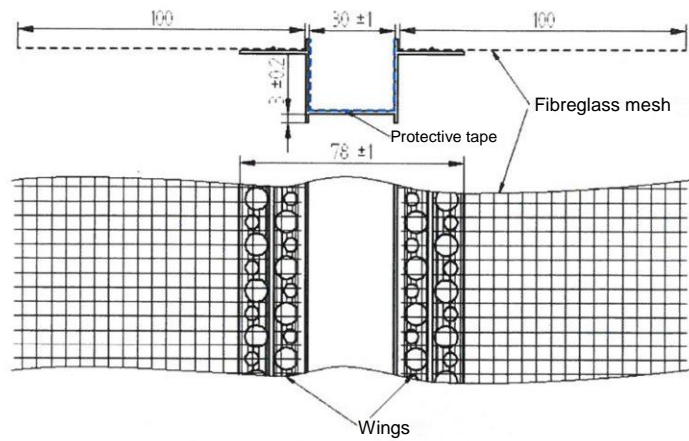


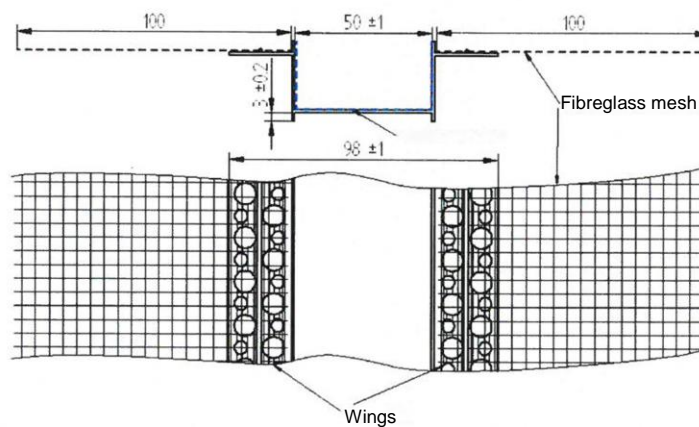
Figure A6. Profiles BP11 H1S (a), BP11 H2S (b), BP11 H3S (c), BP11 H3NS (d), BP11 H5S (e), BP11 H2RS (f), BP11 H3RS (g) i BP11 H5RS (h), continued.

(protective tape colour - as per manufacturer's colour chart; protective tape (foil) for protection, during installation, of parts of the profile that remain visible/exposed after installation is completed)

g)



h)



i)

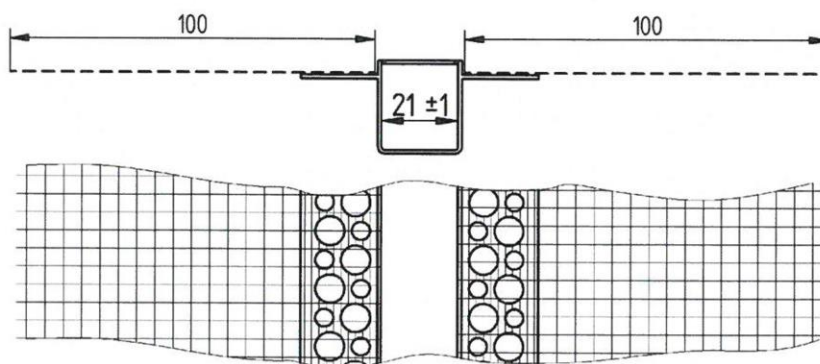


Figure A6. Profiles BP11 H1S (a), BP11 H2S (b), BP11 H3S (c), BP11 H3NS (d), BP11 H5S (e), BP11 H2RS (f), BP11 H3RS (g), BP11 H5RS (h) i BP11 H2 NS, continued.

(protective tape colour - as per manufacturer's colour chart; protective tape (foil) for protection, during installation, of parts of the profile that remain visible/exposed after installation is completed)

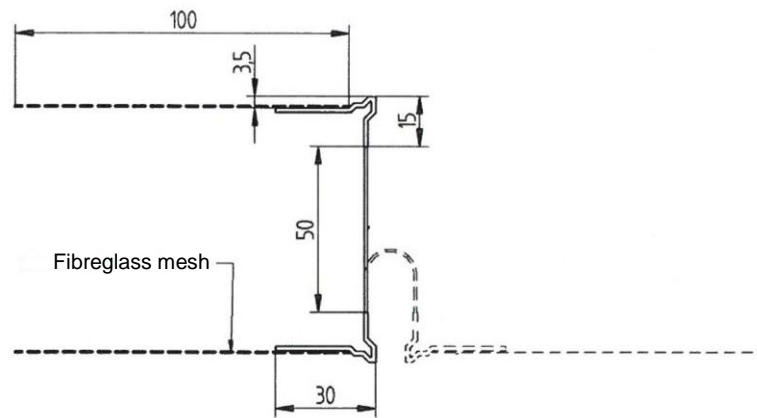


Figure A7. Profile BP15

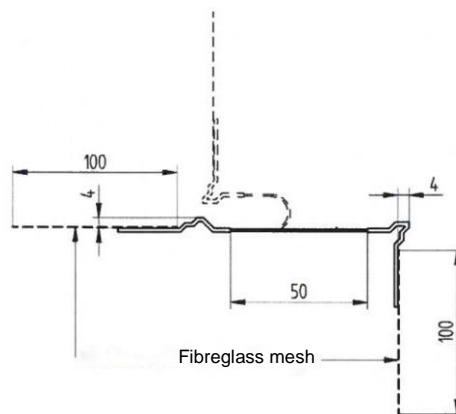


Figure A8. Profile BP16

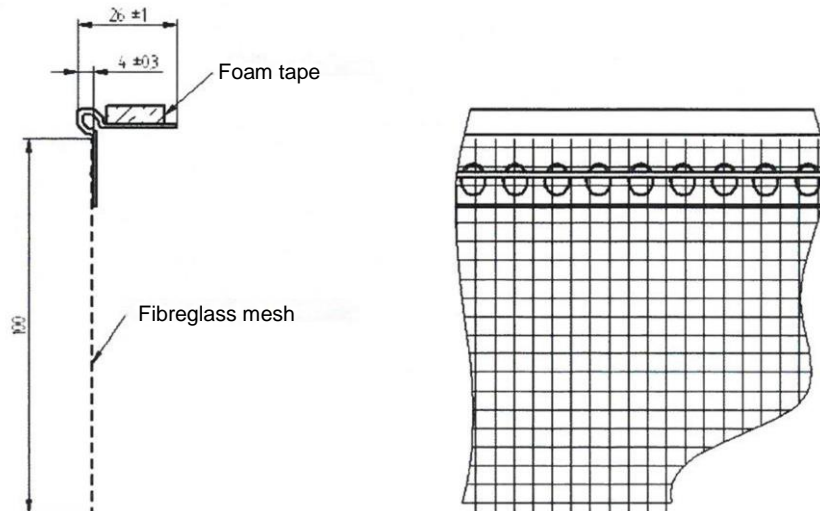


Figure A9. Profile BP20

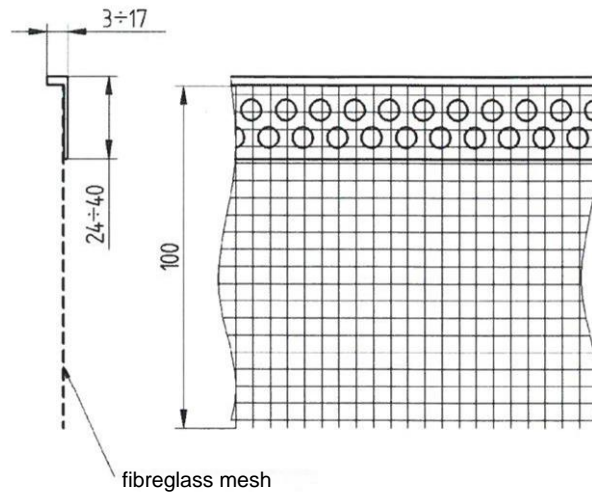


Figure A10. Profile BP22

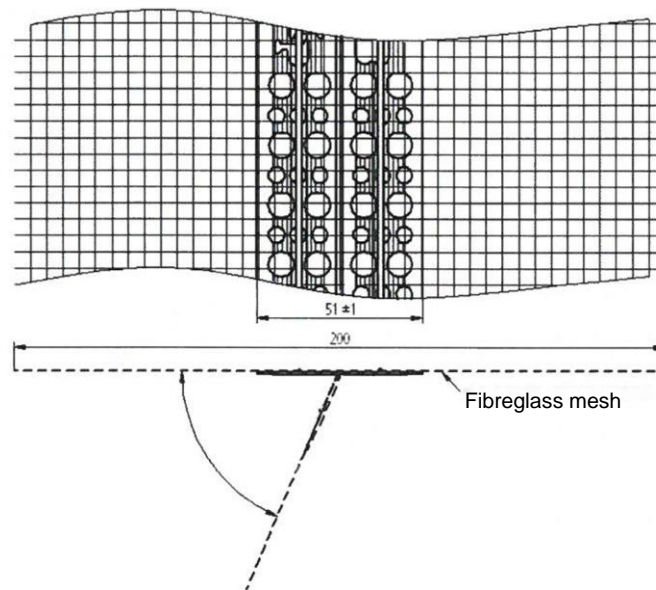
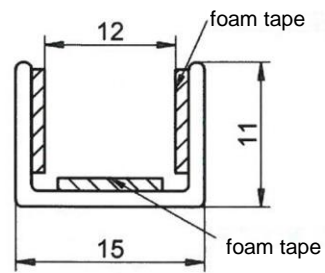


Figure A11. Corner bead BP 4S

a)



b)

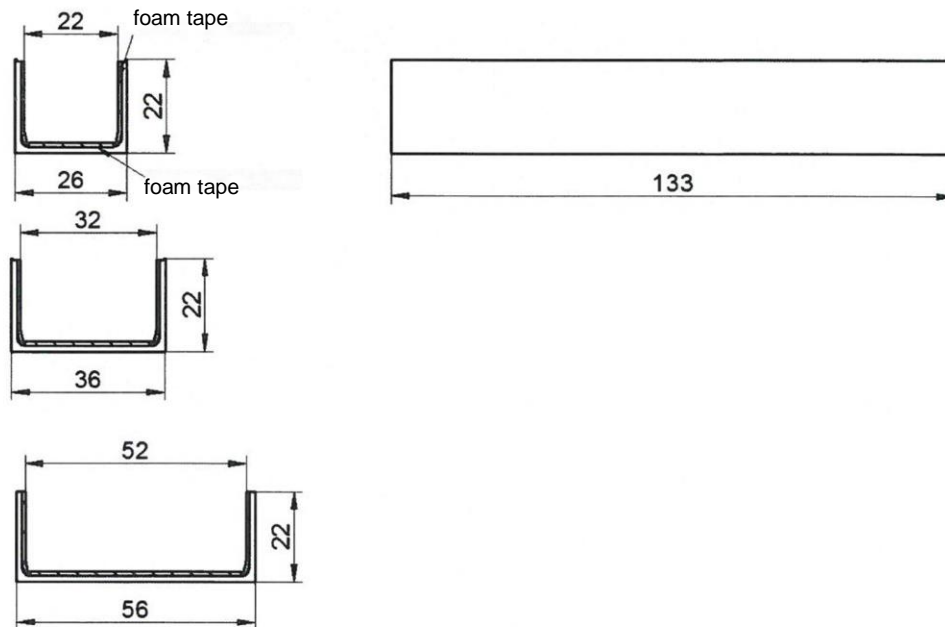


Figure A12. Connectors BP11 LH1 (a) and BP11 LH2, BP11 LH3 and BP11 LH5 (b)

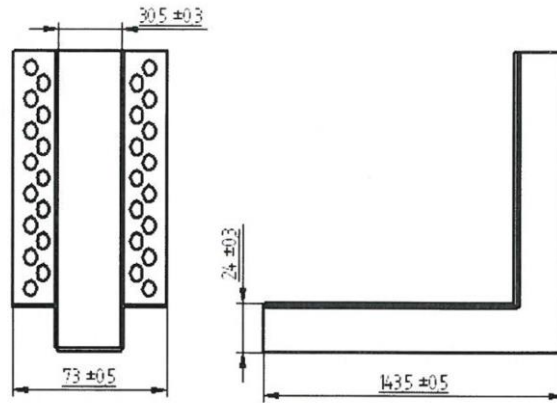


Figure A13. Corner bead BP11 KH3WEW

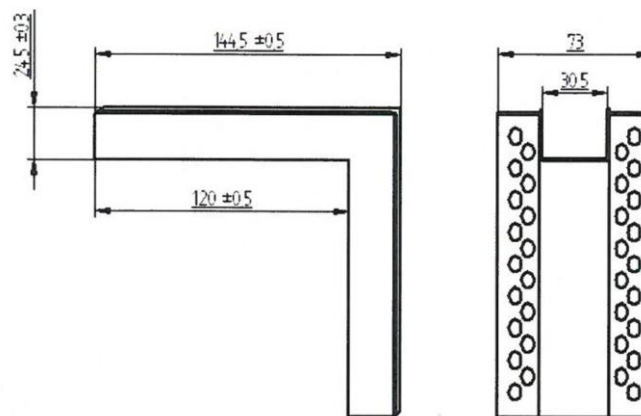


Figure A14. Corner bead BP11 KH3ZEW

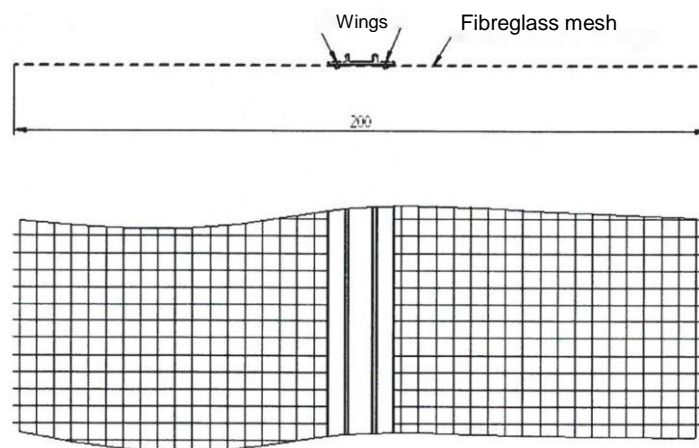


Figure A15. Profile BP11 MINI

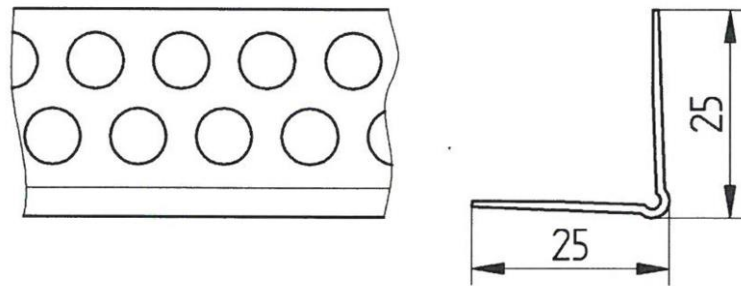


Figure A16. Corner bead BP2

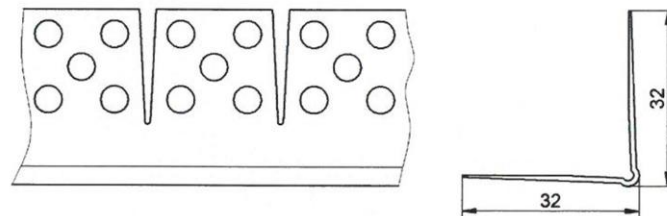
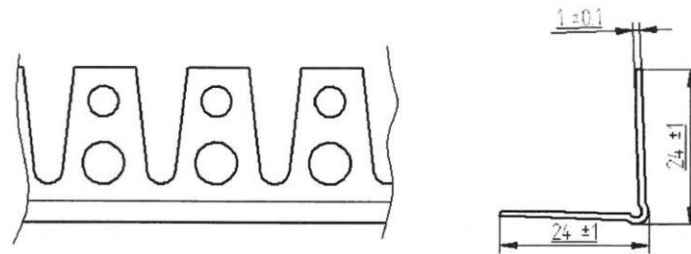


Figure A17. Corner bead BP3

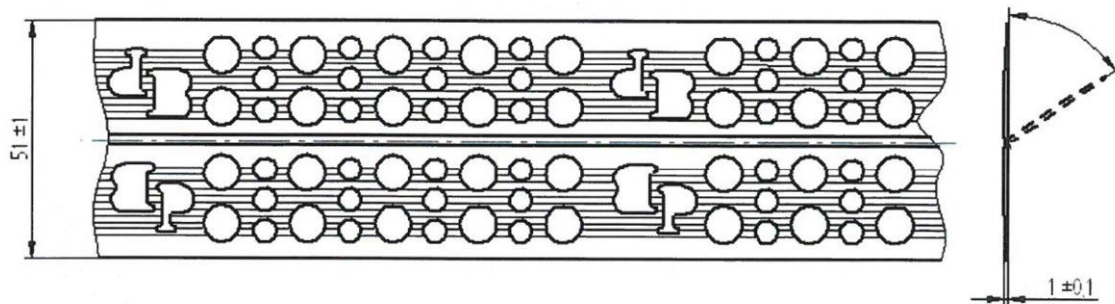


Figure A18. Corner bead BP4

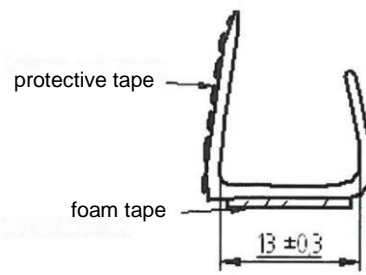


Figure A19. Profile BP5

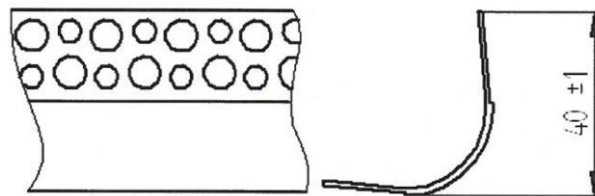


Figure A20. Corner bead BP8

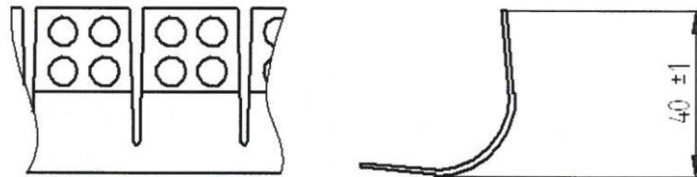


Figure A21. Corner bead BP9

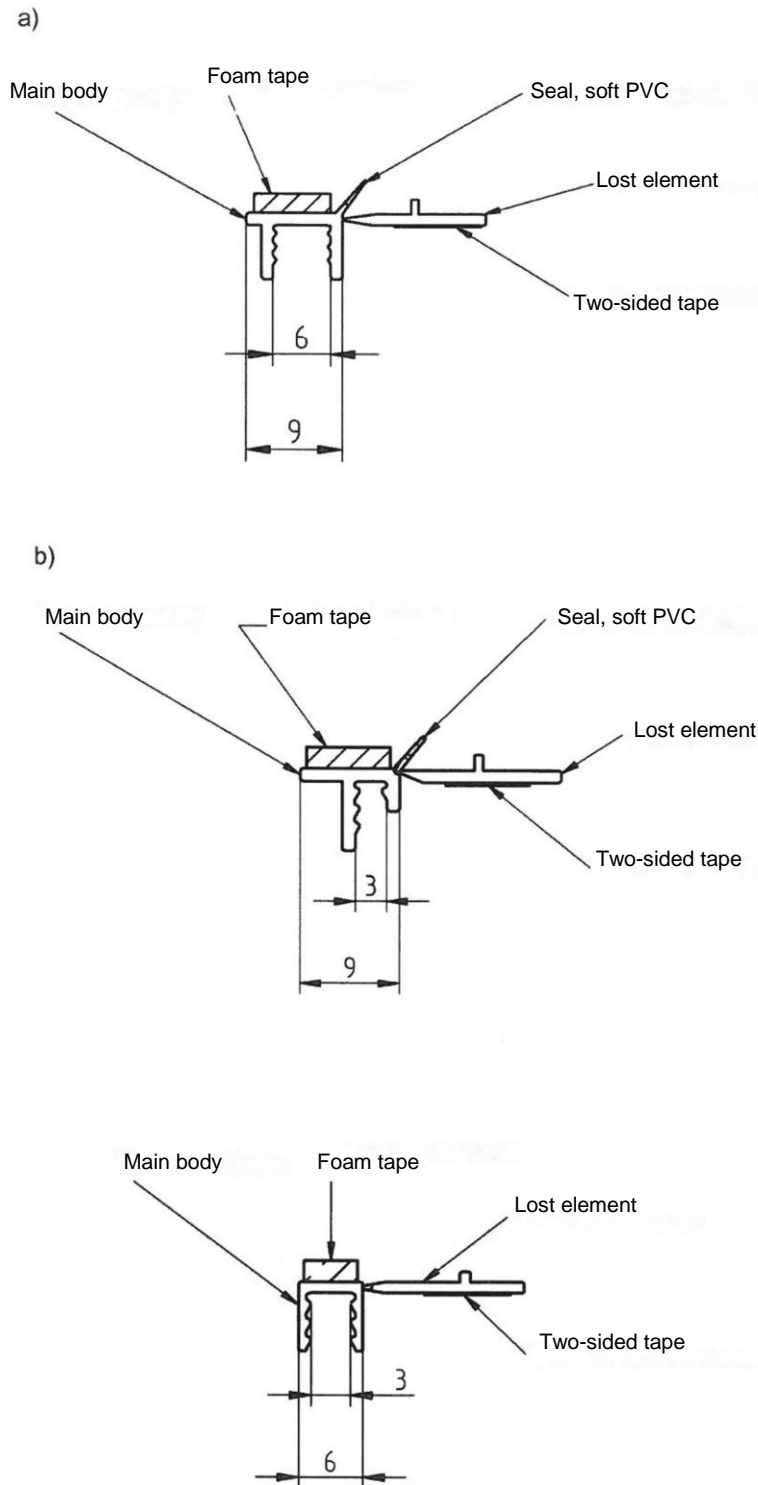
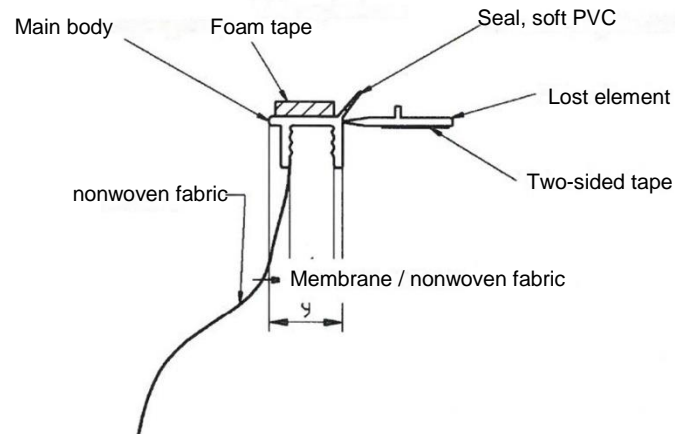
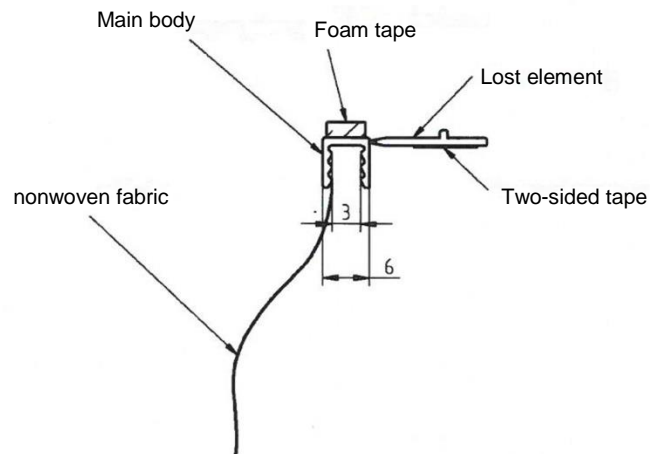


Figure A22. Profiles BP12 (a), BP12 MIDI (b), BP12 MINI (c), BP12 CM (d), BP12 MINI CM (f), BP12 MIDI CM (f), BP12 MINI U CM (g) and BP12 MINI U (h)

d)



e)



f)

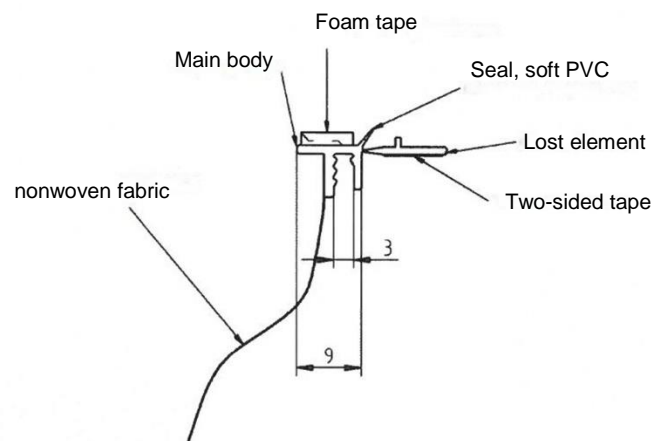
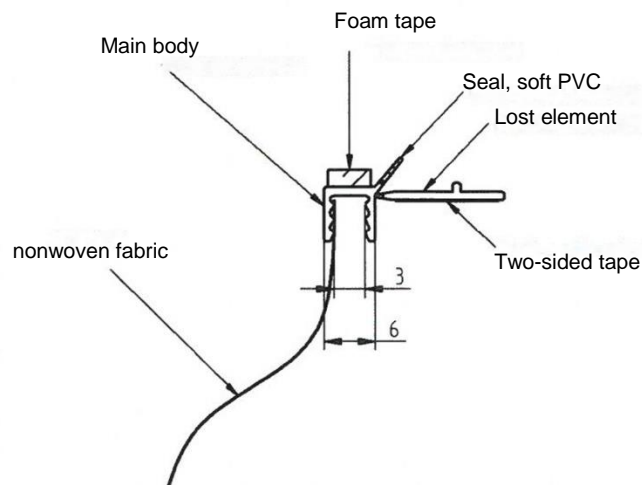


Figure A22. Profiles BP12 (a), BP12 MIDI (b), BP12 MINI (c), BP12 CM (d), BP12 MINI CM (f), BP12 MIDI CM (f), BP12 MINI U CM (g) i BP12 MINI U (h), continued

g)



h)

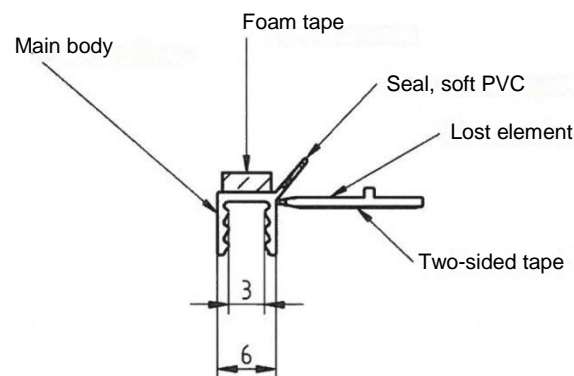
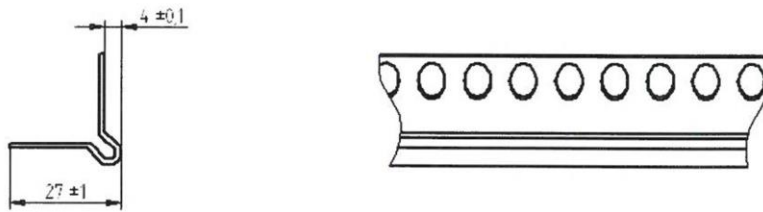
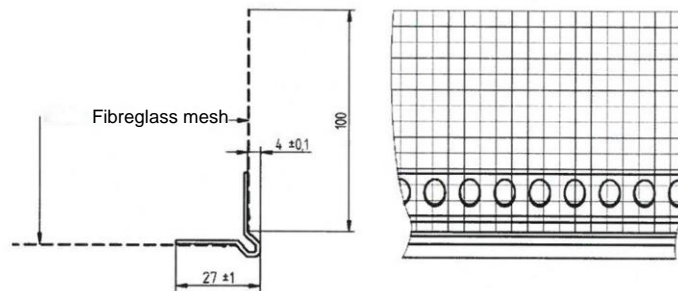


Figure A22. Profiles BP12 (a), BP12 MIDI (b), BP12 MINI (c), BP12 CM (d), BP12 MINI CM (f), BP12 MIDI CM (f), BP12 MINI U CM (g) and BP12 MINI U (h), continued.

a)



b)



c)

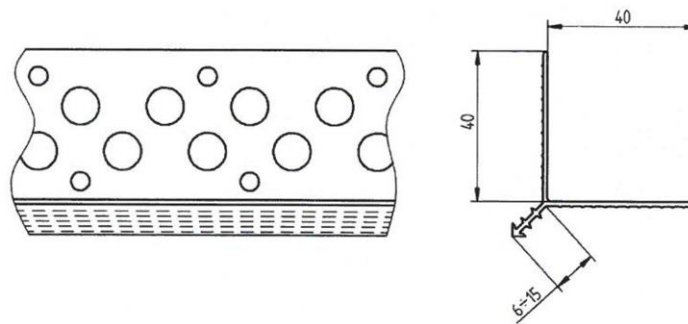
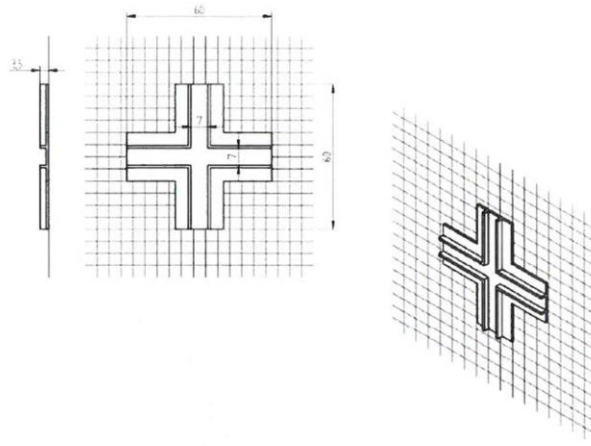
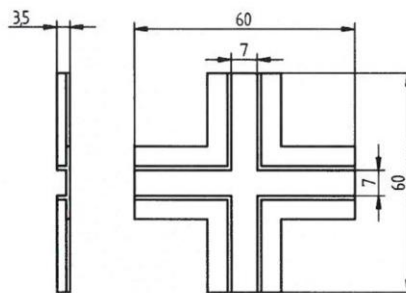


Figure A23. Profiles BP23 (a), BP23 S (b) and BP24 (c)

a)



b)



c)

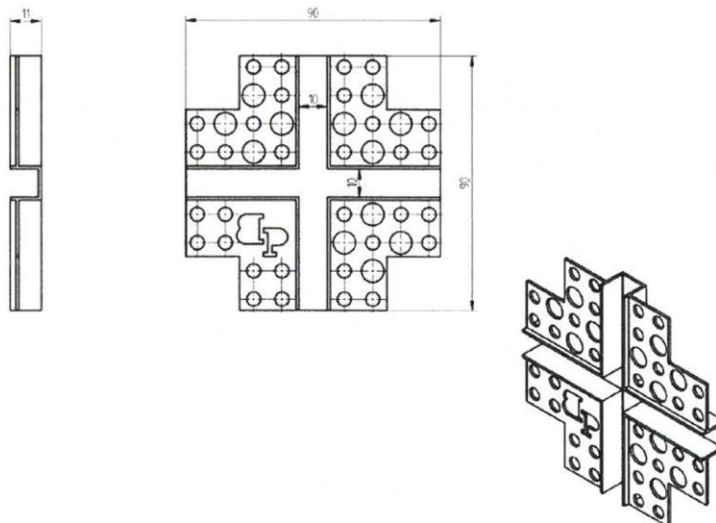
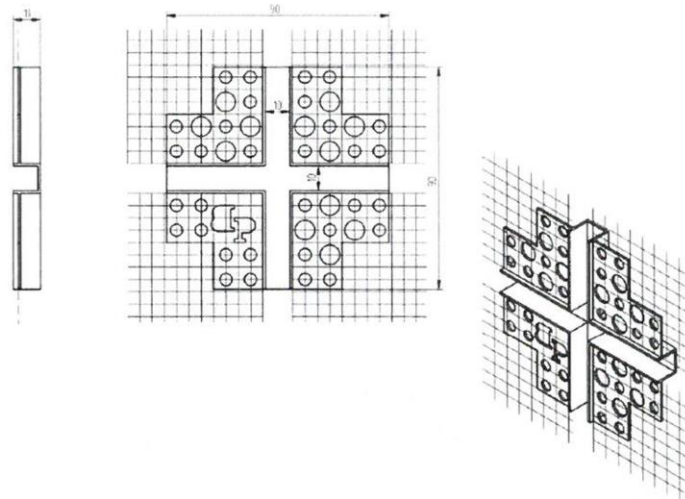
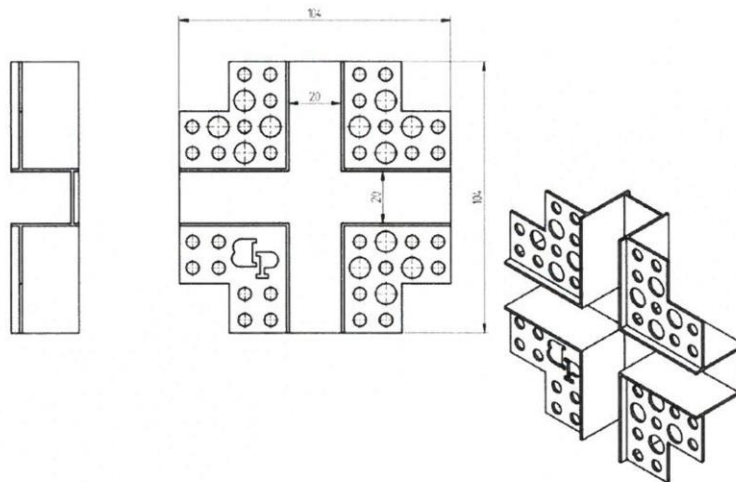


Figure A24. Cross profiles for rustication profiles: BP11 MINI S CC (a), BP11 MINI CC (b), BP11 H1 CC (c), BP11 H1SCC (d), BP11 H2CC (e), BP11 H2SCC (f), BP11 H3CC (g), BP11 H3SCC (h), BP11 H5CC (i) and BP11 H5SCC (Q)

d)



e)



f)

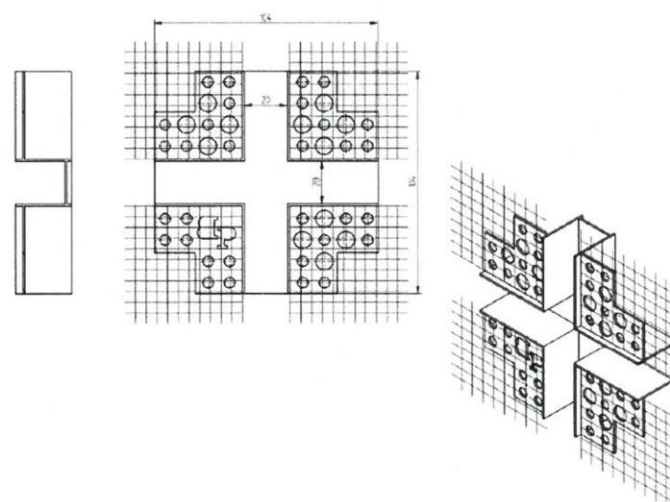
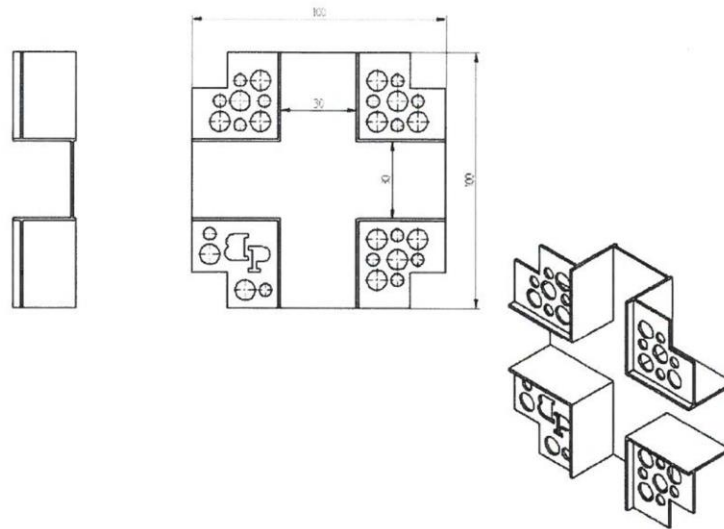
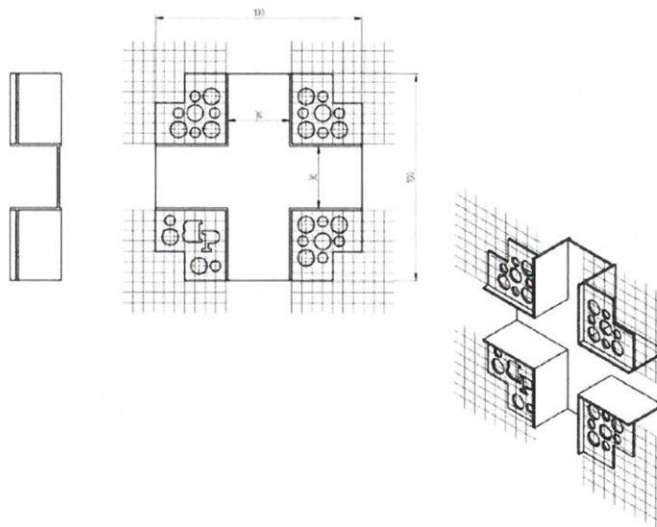


Figure A24. Cross profiles for rustication profiles: BP11 MINI S CC (a), BP11 MINI CC (b), BP11 H1 CC (c), BP11 H1SCC (d), BP11 H2CC (e), BP11 H2SCC (f), BP11 H3CC (g), BP11 H3SCC (h), BP11 H5CC (i) and BP11 H5SCC (j), continued

g)



h)



i)

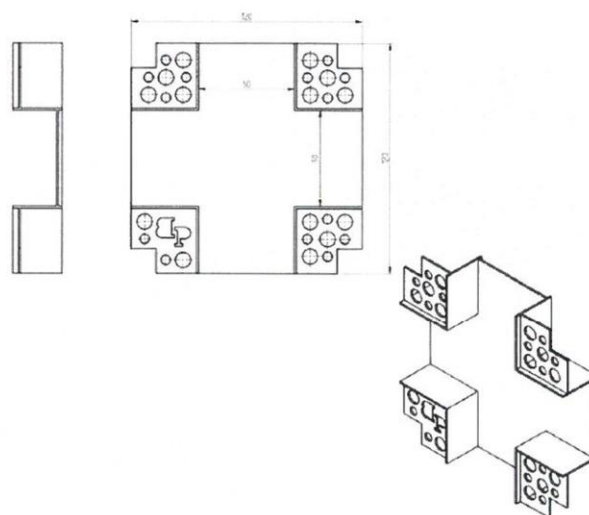


Figure A24. Cross profiles for rustication profiles: BP11 MINI S CC (a), BP11 MINI CC (b), BP11 H1CC (c), BP11 H1SCC (d), BP11 H2CC(e),BP11 H2SCC (f), BP11 H3CC (g), BP11 H3SCC (h), BP11 H5CC (i) i BP11 H5SCC (j), continued

j)

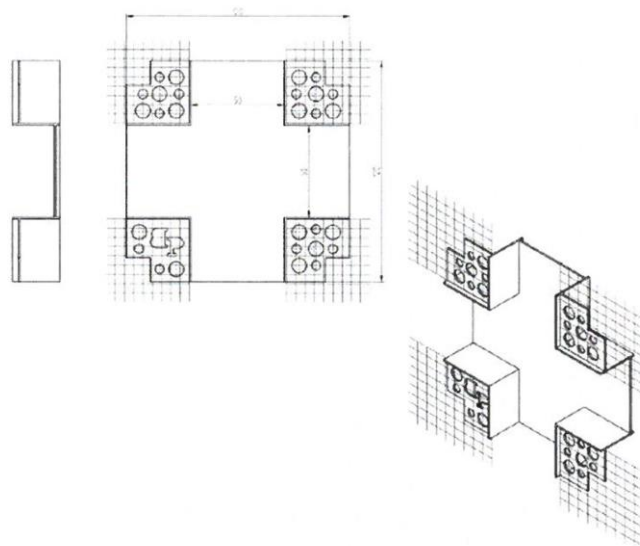


Figure A24. Cross profiles for rustication profiles: BP11 MINI S CC (a), BP11 MINI CC (b), BP11 H1CC (c), BP11 H1SCC (d), BP11 H2CC(e),BP11 H2SCC (f), BP11 H3CC (g), BP11 H3SCC (h), BP11 H5CC (i) and BP11 H5SCC (j), continued

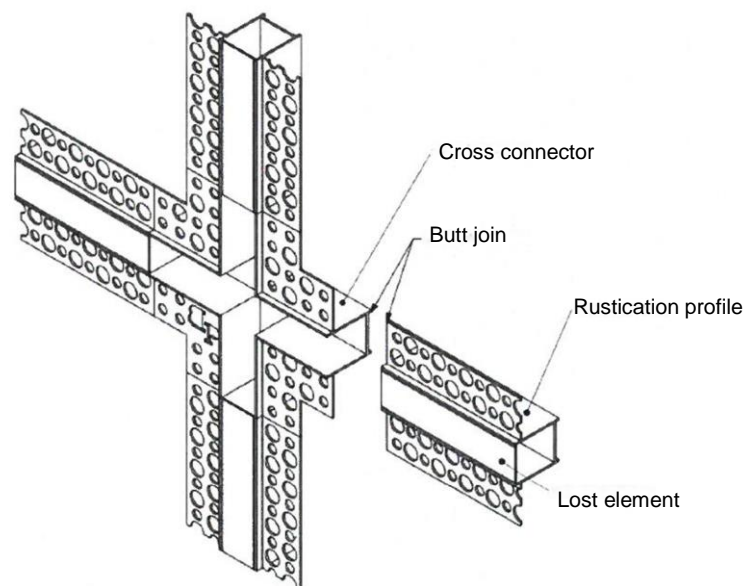


Figure A25. Sample assembly drawings with cross profiles

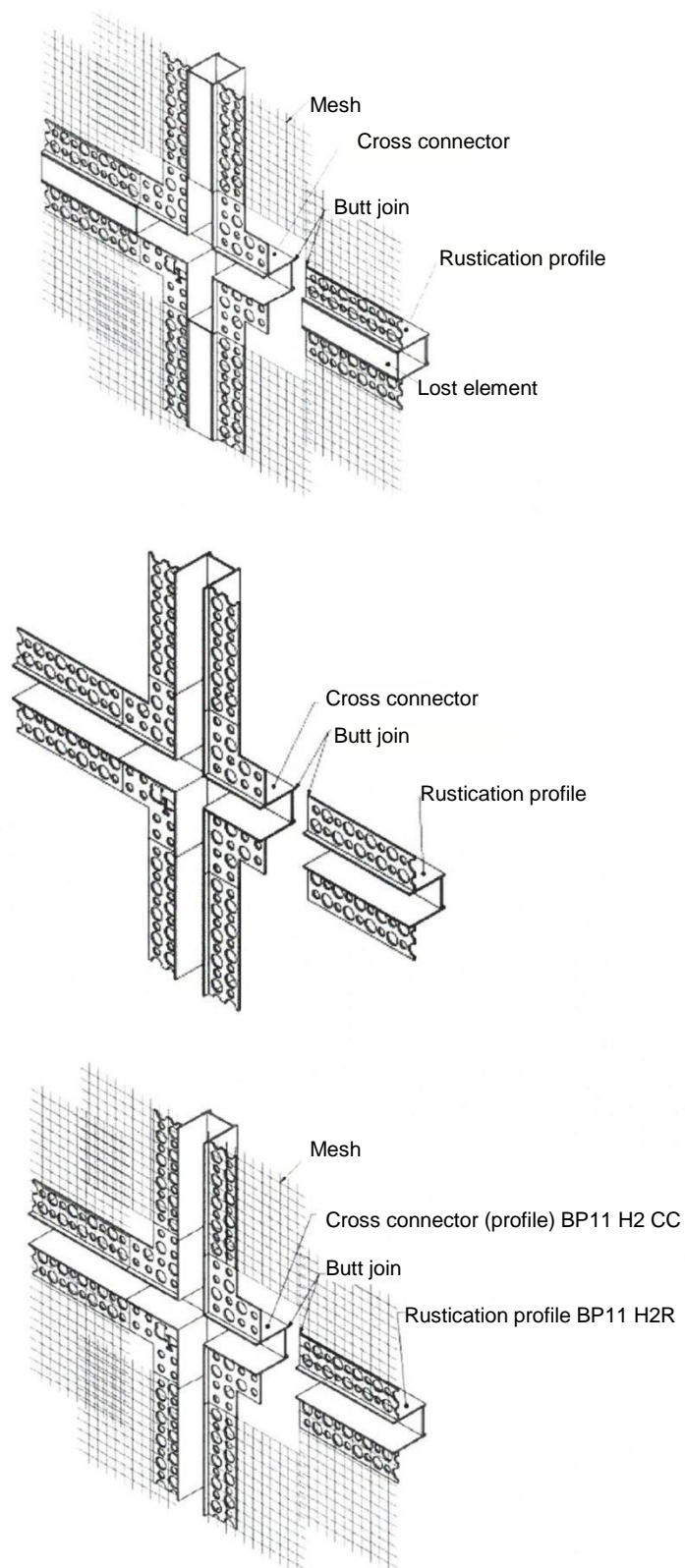


Figure A25. Sample assembly drawings with cross profiles, continued

Appendix B.

B1. Materials and components

The following materials should be used in production of BELLA PLAST finishing profiles:

- fibreglass mesh, alkali resistant, with a surface mass of at least 145 g/m²,
- granulated unplasticized polyvinyl chloride (PVC-U) with the addition of stabilisers, fillers, impact modifiers and lubricants, with the properties as provided in Table B1,
- PE foam tape with density of (50 ± 10%) kg/m³ as per PN-EN ISO 845:2010,
- granulated polyvinyl chloride (soft PVC) with density of (1.2 ± 10%) g/cm³ as per PN-EN ISO 1183-3:2003,
- polypropylene nonwoven fabric as per PN-EN 14716:2008.

Production of finishing profiles from unplasticized polyvinyl chloride (PVC-U) may only be conducted using the original raw material from original manufacturer's packaging. It is permissible to add a secondary raw material of the same type, coming from the manufacturer's own milling, provided that its properties are not deteriorated in relation to the primary raw material.

Table B1.

Item	Properties	Requirements	Test methods
1	Density, g/cm ³	1.65 ± 10 %	PN-EN ISO 1183-1:2013
2	Dimensional stability (longitudinal shrinkage) of PVC profiles, %, after 24 hours at + 70°C	≤ 0.2	as per description in p. B 1.1

B.1.1. Verification of dimensional stability Verification of dimensional stability of the finishing strips after 24 hours in temperature + 70°C must be performed on 5 samples with dimensions (100 mm x nominal width x nominal thickness), with a nominal measuring base equal to 100 mm. The samples, after measuring the distance at the marked measuring points using a calliper, should be placed for 24 hours in a climatic chamber at + 70°C, air-conditioned for 2 hours in laboratory conditions and then measured in previous measurement points. Dimensional stability should be determined by changing the distance of the measuring points, in%.

B2. Quality of workmanship

Surfaces of finishing profiles should be even and smooth, without cracks, burrs and sharp edges as well as discolorations, lumps and notches. The edges defining the corner line should be even and smooth, without any mechanical damage.