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European Technical Assessment ETA-19/0359 of 30/09/2019

General Part

Technical Assessment Body issuing the European Technical Assessment	Instytut Techniki Budowlanej
Trade name of the construction product	TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM TYTAN PROFESSIONAL B1 FIRE SILICONE
Product family to which the construction product belongs	Fire Stopping and Fire Sealing Products. Linear Joint and Gap Seals
Manufacturer	Selena FM SA ul. Strzegomska 2-4 53-611 Wrocław Poland
Manufacturing plants	Plant A Plant B Plant C
This European Technical Assessment contains	12 pages including 2 Annexes which form an integral part of this Assessment
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	European Assessment Document EAD 350141-00-1106 "Fire Stopping and Fire Sealing Products. Linear Joint and Gap Seals"

This European Technical Assessment is issued by the Technical Assessment Body in its official language. Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and shall be identified as such.

Specific Part

1 Technical description of the product

TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM is a polyurethane foam, used as a foamed in-situ material (type of fixing: SA). This foam is applied by gun directly into the linear joint or gap seals in walls.

TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM is a polyurethane foam, used as a foamed in-situ self-adherent material. This foam is applied by straw directly into the linear joint or gap seals in walls.

TYTAN PROFESSIONAL B1 FIRE SILICONE is a silicone, used as a formed in-situ self-adherent sealant in linear joint or gap seals in walls. TYTAN PROFESSIONAL B1 FIRE SILICONE can be applied onto TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM, TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM or mineral wool acc. to EN 14303 or EN 13162, used as a backing material.

2 Specification of the intended use in accordance with the applicable European Assessment Document (EAD)

2.1 Intended use

The intended use of TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM, TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM and TYTAN PROFESSIONAL B1 FIRE SILICONE is to reinstate the fire resistance performance of rigid wall constructions where there are linear joints and gaps.

TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM, TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM and TYTAN PROFESSIONAL B1 FIRE SILICONE shall be used in in rigid walls, which must have a minimum thickness of 150 mm and comprise concrete, reinforced concrete, aerated concrete, bricks or blocks, with a minimum density of 600 kg/m^3.

The wall must be classified in accordance with EN 13501-2 for the required fire resistance period (equal or greater than specified in Annex B).

The permitted joint / gap width for the TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM, TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM and TYTAN PROFESSIONAL B1 FIRE SILICONE is specified in Annex B.

The TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM, TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM and TYTAN PROFESSIONAL B1 FIRE SILICONE shall be used to form linear joint or gap seals with movement capability lower than 7.5% (non-movement joints).

The performances given in this European Technical Assessment are based on an assumed working life of the products of 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer or the Technical Assessment Body, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

Additional provisions are given in Annex A.

2.2 Use category

Type Z_2: intended for use in internal conditions with humidity lower than 85% RH, excluding temperatures below 0°C, without exposure to rain or UV.

3 Performance of the product and references to the methods used for its assessment

3.1 Performance of the product

3.1.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	No performance assessed
Resistance to fire	Annex B

3.1.2 Hygiene, health and the environment (BWR 3)

No performance assessed.

3.1.3 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Mechanical resistance and stability	No performance assessed
Resistance to impact / movement	No performance assessed
Adhesion	No performance assessed
Durability	Use category: Type Z_2
Movement capability	No performance assessed (non-movement joints)

3.1.4 Protection against noise (BWR 5)

No performance assessed.

3.1.5 Energy economy and heat retention (BWR 6)

No performance assessed.

3.2 Methods used for the assessment

The assessment of the product has been made in accordance with the European Assessment Document 350141-00-1106 "Fire Stopping and Fire Sealing Products. Linear Joint and Gap Seals".

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

According to Decision 99/454/EC of the European Commission, as amended by Decision 2001/596/EC of the European Commission the system 1 of assessment and verification of constancy of performance applies (see Annex V to Regulation (EU) No 305/2011).

5 Technical details necessary for the implementation of the AVCP system, as provided in the applicable European Assessment Document (EAD)

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited in Instytut Techniki Budowlanej.

For type testing the results of the tests performed as part of the assessment for the European Technical Assessment shall be used unless there are changes in the production line or plant. In such cases the necessary type testing has to be agreed between Instytut Techniki Budowlanej and the notified body.

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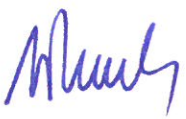
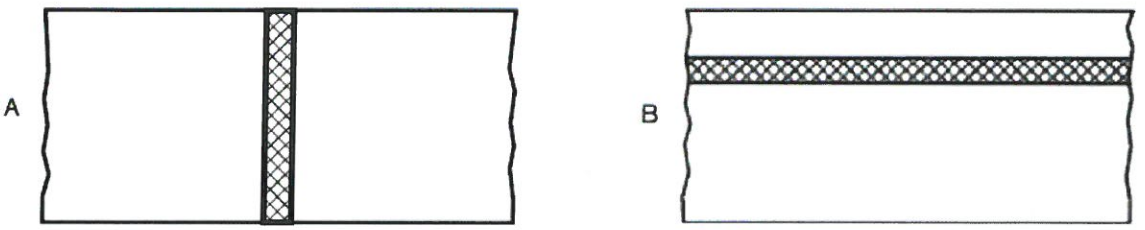


Anna Panek, MSc
Deputy Director of ITB

Additional provisions

- Possible orientation of the linear joint seals is presented in fig. A1.

Fig. A1. Possible orientation of linear joints seals made with use TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM, TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM and TYTAN PROFESSIONAL B1 FIRE SILICONE



joint seal

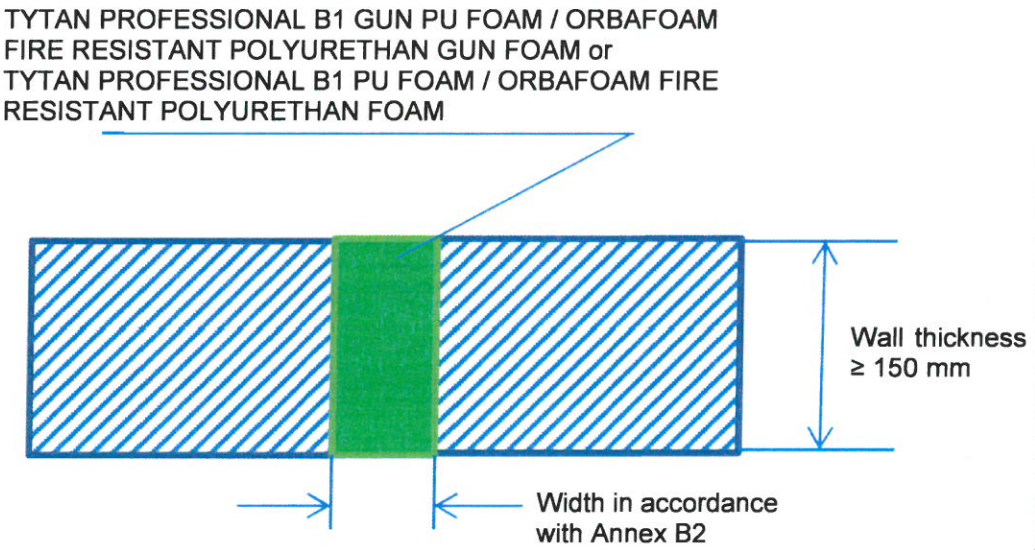
wall – front view

A vertical linear joint in a vertical supporting construction

B horizontal linear joint in a vertical supporting construction

- TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM, TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM and TYTAN PROFESSIONAL B1 FIRE SILICONE shall be applicable only to straight parallel edge surfaces of wall.
- The gap shall be fully filled with the foam, silicone or mineral wool, in accordance with Annex B.

Fig. B1. Linear joint seal made with use TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM or TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM in rigid wall



TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM, TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM and TYTAN PROFESSIONAL B1 FIRE SILICONE	**Annex B1** of European Technical Assessment ETA-19/0359
Construction details of linear joint seals in rigid wall	

Resistance to fire classification of vertical linear joint seal made with use of TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM in rigid wall, in accordance with fig. B1 and Annex A:

Fire resistance class: EI 180 – V – X – F – W 10

Fire resistance class: EI 60 – V – X – F – W 11 to W 30

Resistance to fire classification of horizontal linear joint seal made with use of TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM in rigid wall, in accordance with fig. B1 and Annex A:

Fire resistance class: EI 120 – T – X – F – W 10

Fire resistance class: EI 30 – T – X – F – W 11 to W 30

Resistance to fire classification of vertical linear joint seal made with use of TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM in rigid wall, in accordance with fig. B1 and Annex A:

Fire resistance class: EI 120 – V – X – F – W 10

Fire resistance class: EI 60 – V – X – F – W 11 to W 30

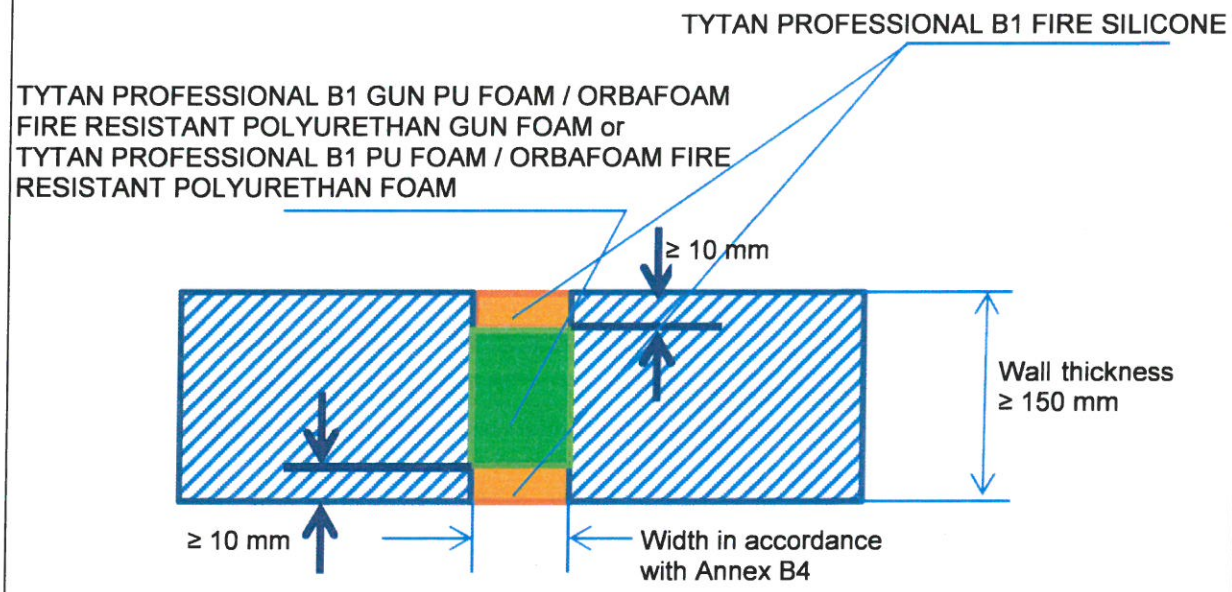
Resistance to fire classification of horizontal linear joint seal made with use of TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM in rigid wall, in accordance with fig. B1 and Annex A:

Fire resistance class: EI 120 – T – X – F – W 10

Fire resistance class: EI 60 – T – X – F – W 11 to W 30

TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM, TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM and TYTAN PROFESSIONAL B1 FIRE SILICONE	**Annex B2** of European Technical Assessment ETA-19/0359
Resistance to fire classification of linear joint seals	

Fig. B2. Linear joint seal made with use TYTAN PROFESSIONAL B1 FIRE SILICONE and TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM or TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM, in rigid wall



TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM, TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM and TYTAN PROFESSIONAL B1 FIRE SILICONE	**Annex B3** of European Technical Assessment ETA-19/0359
Construction details of linear joint seals in rigid wall	

Resistance to fire classification of vertical linear joint seal made with use of TYTAN PROFESSIONAL B1 FIRE SILICONE and TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM in rigid wall, in accordance with fig. B2 and Annex A:

Fire resistance class: EI 240 – V – X – F – W 10

Fire resistance class: EI 120 – V – X – F – W 11 to W 30

Resistance to fire classification of horizontal linear joint seal made with use of TYTAN PROFESSIONAL B1 FIRE SILICONE and TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM in rigid wall, in accordance with fig. B2 and Annex A:

Fire resistance class: EI 240 – T – X – F – W 10 to W 30

Resistance to fire classification of vertical linear joint seal made with use of TYTAN PROFESSIONAL B1 FIRE SILICONE and TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM in rigid wall, in accordance with fig. B2 and Annex A:

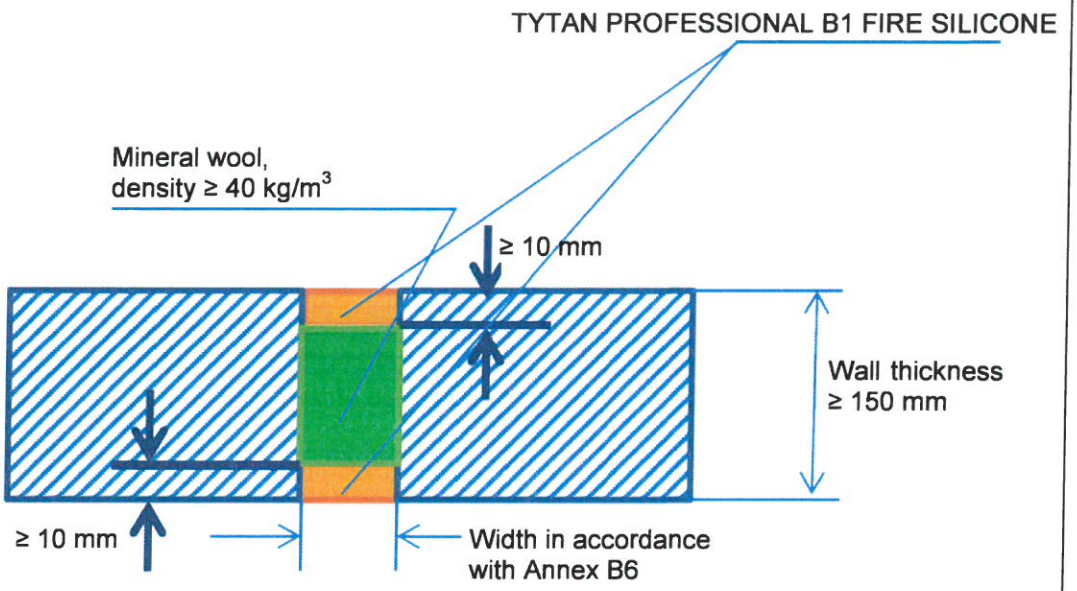
Fire resistance class: EI 240 – V – X – F – W 10

Fire resistance class: EI 120 – V – X – F – W 11 to W 30

Resistance to fire classification of horizontal linear joint seal made with use of TYTAN PROFESSIONAL B1 FIRE SILICONE and TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM in rigid wall, in accordance with fig. B2 and Annex A:

Fire resistance class: EI 240 – T – X – F – W 10 to W 30

Fig. B3. Linear joint seal made with use TYTAN PROFESSIONAL B1 FIRE SILICONE and mineral wool in rigid wall



TYTAN PROFESSIONAL B1 GUN PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN GUN FOAM, TYTAN PROFESSIONAL B1 PU FOAM / ORBAFOAM FIRE RESISTANT POLYURETHAN FOAM and TYTAN PROFESSIONAL B1 FIRE SILICONE	**Annex B5** of European Technical Assessment ETA-19/0359
Construction details of linear joint seals in rigid wall	

Resistance to fire classification of vertical linear joint seal made with use of TYTAN PROFESSIONAL B1 FIRE SILICONE and mineral wool in rigid wall, in accordance with fig. B3 and Annex A:

Fire resistance class: EI 240 – V – X – F – W 10 to W 30

Resistance to fire classification of horizontal linear joint seal made with use of TYTAN PROFESSIONAL B1 FIRE SILICONE and mineral wool in rigid wall, in accordance with fig. B3 and Annex A:

Fire resistance class: EI 240 – T – X – F – W 10 to W 30