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# European Technical Assessment

# ETA 24/1207 of 20.12.2024

## General part

| | |
|---|---|
| **Technical Assessment Body issuing the ETA: ITeC**<br>ITeC has been designated according to Article 29 of Regulation (EU) No 305/2011 and is member of EOTA (European Organisation for Technical Assessment). | |
| **Trade name of the construction product** | **SEAL W** |
| **Product family to which the construction product belongs** | Fire stopping and fire sealing products.<br>Penetration seals. |
| **Manufacturer** | **ROTHO BLAAS SRL**<br>Via dell'Adige 2/1<br>IT-39040 Cortaccia (BZ)<br>Tel. + 39 0471 818400<br>Fax + 39 0471 818484<br>www.rothoblaas.com |
| **Manufacturing plant(s)** | ROTHO BLAAS SRL<br>Manufacturing Plants: PS1 |
| **This European Technical Assessment contains** | 9 pages including 1 annex which forms an integral part of this assessment<br>and<br>Annex N, which contains confidential information and is not included in the European Technical Assessment when that assessment is publicly available. |
| **This European Technical Assessment is issued in accordance with Regulation (EU) 305/2011, on the basis of** | European Assessment Document EAD 350454-00-1104. |

**General comments**

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full (excepted the confidential Annex(es)).

## Specific parts of the European Technical Assessment

# 1 Technical description of the product

SEAL W is a water-based ablative acrylic sealant with the characteristics given in table 1. The description of the installation procedure is given in Annex A.2.

**Table 1:** Characteristics of SEAL W.

| Characteristic | Nominal value |
|---|---|
| Appearance | Thixotropic paste |
| Colour | White |
| Specific weight - wet (kg/l) | 1,4 ± 0,1 |
| Drying time (h) | 1 |
| Complete hardening (mm/h) | 0,14 |
| Maximum enlargement (DIN 52455) (%) | 200 |

## 2 Specification of the intended use(s) in accordance with the applicable EAD

SEAL W is used to reinstate the resistance to fire performance of a constructive element where it is penetrated by small size plastic pipes and cables. The detailed specification of the services that may be protected with SEAL W are given in Annex A.

The constructive elements where SEAL W is installed to provide a penetration seal are as follows:

- Flexible walls with a minimum thickness of 135 mm which comprise timber or steel studs lined on both faces with minimum two layers of 15 mm thick 'Type F' or 'Type DF' gypsum plasterboards according to EN 520. In timber stud walls, no part of the penetration shall be closer than 100 mm to a stud, the cavity must be closed between the penetration seal and the stud and minimum 100 mm of insulation of reaction to fire class A1 or A2, according to EN 13501-1, is provided within the cavity between the penetration seal and the stud.
- Rigid walls of concrete or masonry with a minimum thickness of 150 mm and a minimum density of 500 kg/m$^3$.
- Rigid floors of concrete (or other type of rigid floors) with a minimum thickness of 200 mm and a minimum density of 1600 kg/m$^3$.

The constructive element where SEAL W is installed must be classified in accordance with EN 13501-2 for the required fire resistance period.

SEAL W is also intended for use as an ancillary component in the fire penetration seals as given in ETA 24/1082 for SACCUS, ETA 24/1203 for UNICOLLUM, ETA 24/1204 for COLLUM, ETA 24/1205 for MASS and ETA 24/1206 for PANEL

SEAL W is intended for the environmental conditions as defined for use category Type $Y_{2,(-10/+70)^oC}$ according to EAD 350454-00-1104: intended for semi-exposed use at temperatures below 0°C, without exposure to rain or UV. Type $Y_2$ includes lower use categories (i.e., Type $Z_1$ and Type $Z_2$).

The provisions made in this ETA are based on a working life of SEAL W of at least 25 years, provided that the conditions laid down in the manufacturer's instructions for the installation, use and maintenance are met. These provisions are based upon the current state of the art and the available knowledge and experience.

The indications given as to the working life of the product cannot be interpreted as a guarantee but are regarded only as a means for choosing the appropriate products in relation to the expected economically reasonable working life of the works.

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

## 3.1 Performance of the product

The assessment of SEAL W has been performed in accordance with EAD 350454-00-1104 for *Fire stopping and fire sealing products - Penetration seals (September 2017)*.

**Table 2:** Performance of the product.

| **Product:** SEAL W | | **Intended use:** Fire penetration seal |
|---|---|---|
| **Basic requirement** | **Essential characteristic** | **Performance** |
| BWR 2<br>Safety in case of fire | Reaction to fire | NPA[1] |
| | Resistance to fire | See Annex A |
| BWR 4<br>Safety and accessibility in use | Durability | Type $Y_{2,(-10/+70)^oC}$ |

The rest of characteristics included in EAD 350454-00-1104 have not been assessed in this ETA.

## 3.2 Methods used for the assessment

### 3.2.1 Fire resistance

The performance of SEAL W has been tested and assessed according to EN 1366-3 [2]. The classification of the resistance to fire has been determined according to EN 13501-2[3] and is given in Annex A.

### 3.2.2 Durability

SEAL W has been tested and assessed for the environmental use category Type $Y_{2,(-10/+70)^oC}$ (for a 25-year working life) in accordance with section 2.2.9 of EAD 350454-00-1104 and EOTA Technical Report 024[4], section 2.2.5.

Additionally, SEAL W has been tested for the environmental use category Type $Y_{1,(-10/+70)^oC}$ (for a 25-year working life), including UV exposure, in accordance with EOTA Technical Report 024, section 2.2.4. However, this assessment is only for informative purpose and not part of the claimed environmental use category as given in section 2.

[1] NPA: No Performance Assessed.

[2] EN 1366-3 Fire resistance tests for service installations. Part 3: Penetration seals (2009).

[3] EN 13501-2 Fire classification of construction products and building elements. Part 2: Classification using data from fire resistance and/or smoke control tests, excluding ventilation services.

[4] EOTA TR 024 Technical description and assessment of reactive products effective in case of fire, Edition August 2019.

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

According to the Decision 1999/454/EC of the European Commission, the system of AVCP (see EC delegated Regulation (EU) No 568/2014 amending Annex V to Regulation (EU) 305/2011) given in the following table applies.

**Table 3:** AVCP System.

| Product(s) | Intended use(s) | Level(s) or class(es) | System(s) |
|---|---|---|---|
| Fire stopping and fire sealing products | For fire compartmentation and/or fire protection or fire performance | Any | 1 |

## 5 Technical details necessary for the implementation of the AVCP system, as foreseen in the applicable EAD

All the necessary technical details for the implementation of the AVCP system are laid down in the *Control Plan* deposited with the ITeC and agreed in accordance with EAD 350141-00-1106, section 3.

The *Control Plan* is a confidential part of the ETA and only handed over to the notified product certification body involved in the assessment and verification of constancy of performance.

The factory production control operated by the manufacturer shall be in accordance with the above mentioned *Control Plan*.

Issued in Barcelona on 20 December 2024

by the Catalonia Institute of Construction Technology.

Ferran Bermejo Nualart
Technical Director, ITeC

# ANNEX A. Resistance to fire performance

## A.1. Resistance to fire classification

The resistance to fire classification of the fire penetration seals assessed in this ETA are given in the next table.

**Table A.1:** Resistance to fire classification.

| Constructive element (i) | Service | Seal | Resistance to fire |
|---|---|---|---|
| Flexible wall (ii) | Cable type A1 Ø10 mm | Circular gap of maximum diameter 20 mm filled with SEAL W through all the wall depth.<br>See figure A.1.1. | EI 120 |
| Rigid wall | PVC pipe (U/C) (iii)<br>$Ø_{ext}$ = 38 mm<br>t = 1,0 mm | The pipe is tightly fitted into the wall gap (Ø 38 mm) filled with SEAL W at a minimum depth of 30 mm (non-exposed side of the wall only).<br>See figure A.1.2. | EI 180 |
| | Corrugated PVC pipe<br>$Ø_{ext}$ = 32 mm<br>t = 2 mm<br>5 cables type A1 inside | Circular gap of maximum diameter 36 mm filled with SEAL W at a minimum depth of 20 mm (both sides of the wall).<br>See figure A.1.3. | |
| | Bunch ($Ø_{ext}$ = 25 mm) of cables type A1 | Circular gap of maximum diameter 30 mm filled with SEAL W at a minimum depth of 20 mm (both sides of the wall).<br>See figure A.1.4. | |
| Rigid floor | Cables type A1 | Rectangular gap in the floor (500 mm x 80 mm) filled with SEAL W at a minimum depth of 50 mm (exposed side of the floor only).<br>Maximum 7 cables distributed along the centreline of the seal long side.<br>See figure A.1.5. | EI 180 |

(i) According to section 2.

(ii) Resistance to fire classifications given for flexible walls can be applied to rigid walls of at least the same thickness and resistance to fire.

(iii) Resistance to fire classifications given for U/C pipe end configuration can be applied to C/U and C/C pipe end configurations.

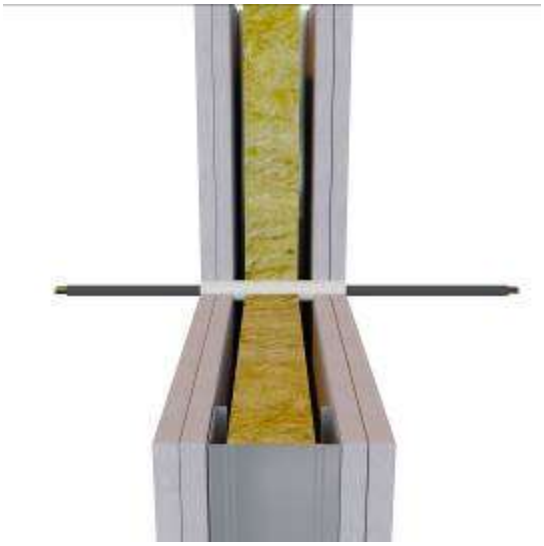

**Figure A.1.1:** Seal of a cable in a flexible wall.


**Figure A.1.2:** Seal of a PVC pipe in a rigid wall.


**Figure A.1.3:** Seal of a corrugated pipe with cables in a rigid wall.


**Figure A.1.4:** Seal of a bunch of cables in a rigid wall.

**Figure A.1.5:** Seal of a cables in a rigid floor.

## A.2. Installation general conditions

SEAL W is a ready-to-use thixotropic paste that can be spread with putty trowels. To reach the specified application depth, the cartridge nozzle shall be inserted in the gap and the sealant extruded with the spray gun. The penetration gap shall be completely filled and sealed according to the specification given in table A.1.

The field of application of the test results can be applied as given in the resistance to fire classification report. The following installation provisions will be noted:

- The installation of the penetration seal will not have an effect on the stability of the adjacent building element, even in the event of fire.
- The structural elements related to the wall/floor in which the penetration seal is incorporated will be designed and fire protected in such a way that no additional mechanical load is imposed on the penetration seal.
- The thermal movements of the pipework will be accommodated in such a way that no resulting load is imposed on the penetration seal.
- The services are fixed to the building element in such a way that no additional mechanical load is imposed on the penetration seal in the event of fire.
- The support of the services is maintained during the required period of resistance to fire.