

CLASSIFICATION REPORT

IWS/EWS in floors

PE Silent

Name of sponsor: Intumescent Systems Ltd and Envirograf Europe

Product name: IWS/EWS and P58 AM mastic.

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Client information

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The results relate only to the items tested. The classification report should only be reproduced in extenso – in extracts only with a written agreement with this institute.

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1. Introduction

This classification report defines the classification assigned to the product in accordance with the procedures given in EN 13501-2:2016.

This classification report includes the direct field of application of the test results.

2. Details of classified product

General

Producer of product: Envirograf Europe ApS

The tested pipes were designated: Geberit Silent DB20

Closure device: IWS/EWS in different sizes mentioned in table A.

Sealant: P58 AM mastic.

The classification is valid for the following end use application: Penetration seals

The classification is valid for the following end use application: Sealing of pipe penetrations in fire compartmentation for decks using the penetrations described in table A.

Product description

The product is a penetration seal system for pipe services installed in vertical direction, penetrating rigid floors.

The pipe closure device is a sleeve/wrap with an active intumescent component inside and wrapped in fibre reinforced tinfoil on all sides. The pipe closure device is placed around the pipe, and always has the same length as the thickness of the deck it penetrates (150 mm). The size of the active component changes depending on pipe diameter. This is described in section 4.1.

The details of the product are described in the DBI test reports listed in section 3.

3. Reports in support of the classification

Test report

The product was successfully tested in accordance with EN 1366-3:2009. The evidence for this is given in the test report listed below:

Reference test:				
Name of Laboratory	Name of sponsor	Test report file no.	Test method	Date of test
Danish Institute of Fire and Security Technology	Envirograf Europe ApS Intumescent Systems Ltd	PGA12059A dated 25-04-2022.	EN 1366-3:2009	14-12-2021

Test results

DBI test report PGA12059A concerns a total of 23 different penetration seals and one linear joint seal were tested in a deck for 135 minutes. Two of the penetrations are within the scope of this report and consist of PE-Silent pipes in the configuration C/C*, designated Geberit Silent DB20 (test specimen 14 and 15). The properties of the penetrations and closure devices are described in table A.

Table A below shows the penetration seals this classification concerns:

System	Test specimen	Pipe type	Seal product type	Pipe close device
IWS/EWS	Seal 14	Ø56 Geberit Silent DB20 PE-S2	P58 AM mastic	IWS83/EW83
IWS/EWS	Seal 15	Ø110 Geberit Silent DB20 PE-S2	P58 AM mastic	IWS115/EW115

* The letters C/C in the classification refers to how the ends of the pipes were closed during the fire test. C/C means the pipes were capped inside the furnace and capped outside the furnace. Section H.4.2 in EN 1366-3:2009, comes with suggestions to how different pipes should be tested regarding the pipe end configuration.

4. Classification and field of application

Reference

This classification has been carried out in accordance with clause 7.5.8 of EN 13501-2:2016.

Classification

The product is classified according to the following combinations of performance and classes as appropriate.

Fire resistance classification: EI 120-C/C

4.1 Field of application EI 120 – C/C

The classification is valid with the following end use conditions:

Orientation of penetration:

For protection of vertical oriented pipe penetrations in a floor (§13.1)

Supporting construction

For penetration through rigid floors (concrete, masonry or aerated concrete)

Minimum density 575 kg/m³ (§13.2.1)

Thickness of 150 mm may be increased as long as the length of the pipe closure device is increased by an equal amount (§13.2.1).

Position of support for the device

The distance between the surface of the supporting construction and the first support for the service shall not exceed 415 mm above the deck (§13.4.3).

The maximum distance from the pipe closure device to the supporting construction shall be between 4-9 mm.

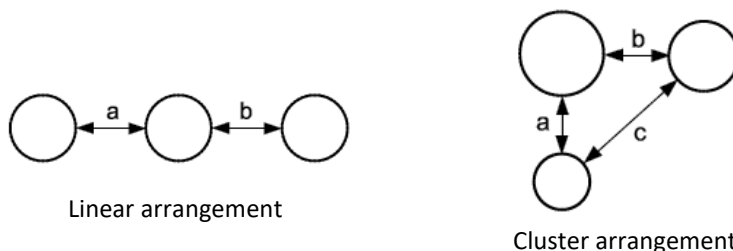
All seals shall have a 3 mm layer P58 AM Mastic sealant on top and bottom of the closure device, with an annular distance from the pipe of 60 mm.

Pipes:

The type of pipes shall be Geberit Silent DB20.

For closure device with 8 mm intumescent thickness, the pipe diameter and pipe thickness is shown in Annex A1.

For closure device with 5 mm intumescent thickness, the pipe diameter shall be ≤ 56 mm and pipe wall thickness shall be 3.2 mm.



Minimum distance between the aperture (drilled hole) for each pipe penetration is:

$a \geq 200 \text{ mm}$

$b \geq 200 \text{ mm}$

$c \geq 200 \text{ mm}$

4.2 Individual classifications for each single penetration.

The classifications and field of application in previous sections are based on the individual classification of each tested penetration, presented in the table below:

Test specimen	Diameter and Size:	Test report:	Integrity (E)	Integrity & Insulation (EI)
	[mm]	[no.]	[-]	[-]
Seal 14	Ø56	PGA12059A	E 120-C/C	EI 120-C/C
Seal 15	Ø110	PGA12059A	E 120-C/C	EI 120-C/C

5. Limitations

This document does not represent type approval or certification of the element.

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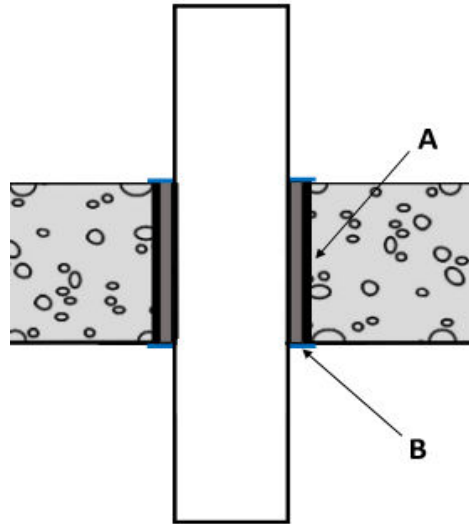
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Envirograf IWS/EWS

PE Silent, Geberit PE-S2 DB20



A: Envirograf Product 110/T Firoblok

B: Envirograf Product 58 AM Mastic

Field of application for 8 mm intumescent thickness

