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Authorised and notified according to Article 29 of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011

MEMBER OF EOTA

European Technical Assessment ETA-19/0704 of 2019/12/16

I General Part

Technical Assessment Body issuing the ETA and designated according to Article 66 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the construction product:	PYRO-SAFE® DG-SC
Product family to which the above construction product belongs:	Fire stopping product – penetration seals.
Manufacturer:	svt Brandschutz Vertriebsgesellschaft mbH International Glüsinger Straße 86 D-21217 Seevetal Tel.: 0049 4105/40 90 0 Internet: www.svt.de
Manufacturing plant:	svt Brandschutz Vertriebsgesellschaft mbH International Glüsinger Straße 86 D-21217 Seevetal
This European Technical Assessment contains:	12 pages including 1 annex which form an integral part of the document
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, based on:	European Assessment Document (EAD) No. 350454-00-1104, dated September 2017: Fire Stopping and fire sealing products – Penetration seals
This version replaces:	-

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product and intended use

Technical description of the product
The intumescent fire protection filler on water-based dispersion product PYRO-SAFE® DG-SC is a viscos, intumescent putty, consisting of intumescent substances and a binder. It hardens when applied on a substrate and forms a flexible intumescent layer which reacts in case of fire by expanding and generating foam.

The construction product PYRO-SAFE® DG-SC is delivered in cartridges, pails and containers of different capacity.

Detailed specifications for identification and performance criteria for fire safety regarding the construction product are given in the annexes of this ETA.

2 Specification of the intended use in accordance with the applicable EAD

The construction product PYRO-SAFE® DG-SC is assessed on the basis of EAD 35054-00-1104, September 2017 as a fire stopping product, penetration seal.

The construction product PYRO-SAFE® DG-SC is intended for use as a component with a fire protection effect in building elements, assembled systems or constructions that are subject to requirements related to fire protection. Their reactive effect prevents heat transmission and fire spreading in the event of fire.

Within the scope of this ETA, the fire resistance was demonstrated for pipe or cable penetration seals. Pipe or cable penetrations seals are used to seal off openings in fire resistant walls or floors, which are penetrated by cables and/or pipes, and serves to preserve the walls or floors fire resistance in the area of the penetrations.

More information in table 3: “Performance of the product and references to the methods used for its assessment”.

The intumescent fire sealing products are to be installed according to the manufacturer’s installation manual.

The provisions made in this European Technical Assessment are based on an assumed intended working life of the PYRO-SAFE® DG-SC of 10 years, provided the manufacturers conditions for the packaging, transport, storage, installation, use, maintenance and repair are met.

The indications given on the working life cannot be interpreted as a guarantee given by the producer or 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.

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

Characteristic	Assessment of characteristic
3.1 Safety in case of fire (BWR2)	
Reaction to fire	The product is classified as **Class E** in accordance with EN13501-1, and the EC Delegated regulation 2016/364/EU.
Resistance to fire	Classification according to EN 13501-2: See Annex A for further information of fire-resistant designs.
3.2 Hygiene, health and the environment (BWR3)	
Content, emission and/or release of dangerous substances	No dangerous substances
Air permeability (material property)	No performance assessed
Water Permeability (material property)	No performance assessed
3.3 Safety in use (BWR4)	
Mechanical resistance and stability	No performance assessed
Resistance to impact/movement	No performance assessed
Adhesion	No performance assessed
Durability	The product fulfils the provisions related to durability in EAD 35054-00-1104 for use condition X.
Movement Capability	No performance assessed
Cycling of perimeter seals for curtain walls	No performance assessed
Compression set	No performance assessed
Linear expansion on setting	No performance assessed
3.4 Protection against noise (BWR5)	
Airborne sound insulation	No performance assessed
3.5 Energy Economy and heat retention (BWR6)	
Thermal insulation	No performance assessed
Water vapour permeability	No performance assessed

*) See additional information in section 3.9 – 3.10.

3.9 Methods of verification

The characteristic values of the joint sealing system are based on the EAD 350454-00-1104, September 2017.

3.10 General aspects related to the fitness for use of the product

The European Technical Assessment is issued for the product based on agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide if such changes affect the ETA and consequently the validity of the CE marking based on the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

PYRO-SAFE® DG-SC is manufactured in accordance with the provisions of this European Technical Assessment using the manufacturing processes as identified in the inspection of the plant by the notified inspection body and laid down in the technical documentation.

4 Attestation and verification of constancy of performance (AVCP)

4.1 AVCP system

According to the decision 1999/454/EC of the European Commission, as amended, the system(s) of assessment and verification of constancy of performance is system 1 (see Annex V to Regulation (EU) No 305/2011).

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

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking

Issued in Copenhagen on 2019-12-16 by

Thomas Bruun
Managing Director, ETA-Danmark

Annex A
Resistance to fire classification of svt intumescent fire protection filler PYRO-SAFE® DG-SC mounted as single penetration seals

A.1 General information:

A. 1.1. Wall/floor constructions

a. **Flexible wall**
The wall must have a minimum thickness of 100 mm and a metal profile frame lined on both faces with minimum 2 layers of 12,5 mm thick gypsum boards according to EN 520 type F.

b. **Aerated concrete wall**
Both vertical sides of the flexible wall construction and aerated concrete wall construction was built (density 650 kg/m^3) Thickness of the wall: 100 mm. Cables, conduits and combustible pipes, mounted in the aerated concrete wall is assessed in this ETA:

c. **Rigid floor**
The floor must have a minimum thickness of 150 mm and comprise aerated concrete with a minimum density of 650±200 kg/m^3

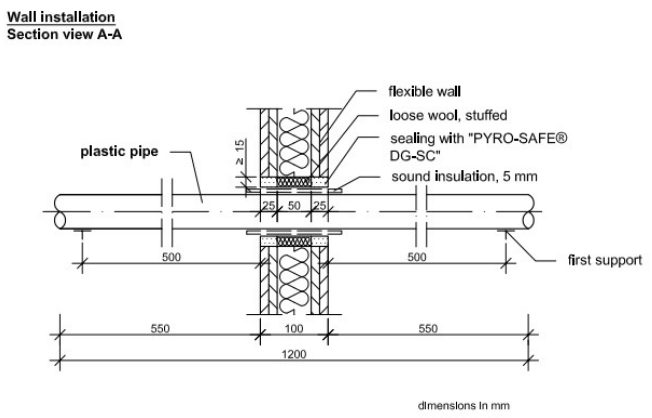
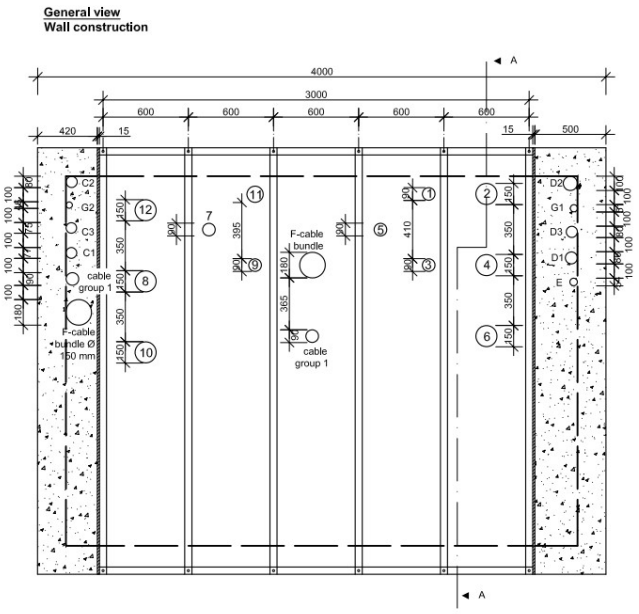
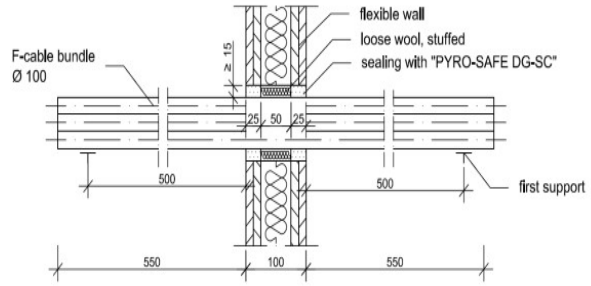
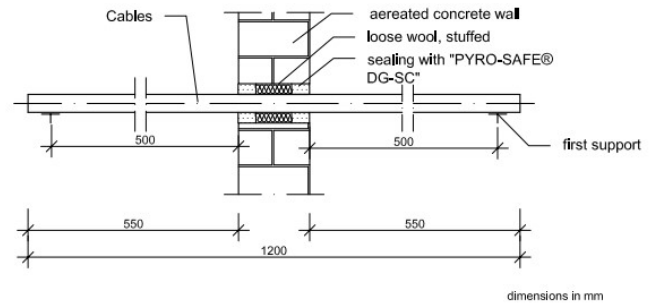
A.2 Flexible Walls, according to Annex A.1.1.a

Penetration seal:
PYRO-SAFE® DG-SC intumescent fire protection filler on both sides, on a stuffed mineral wool backfilling of type Knauf Insulation LW. Depth of the intumescent fire protection filler: 25 mm.

A.3 Aerated concrete wall, according to Annex A.1.1.b

Penetration seal:
PYRO-SAFE® DG-SC intumescent fire protection filler on both sides, on a stuffed mineral wool backfilling of type Knauf Insulation LW. Depth of the intumescent fire protection filler: 25 mm.

Construction details:
Working space:
Between services flexible wall: 350 mm
Between services aerated concrete wall: 100 mm

Wall installation	General view
	
	
	

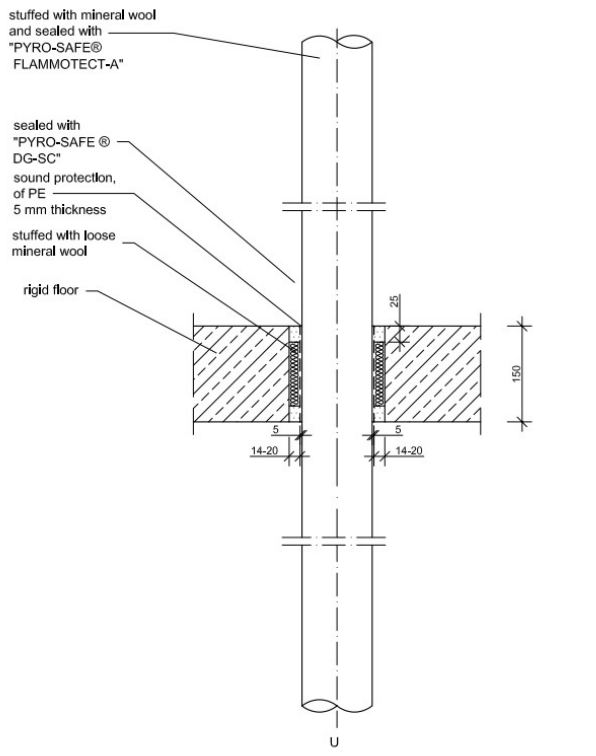
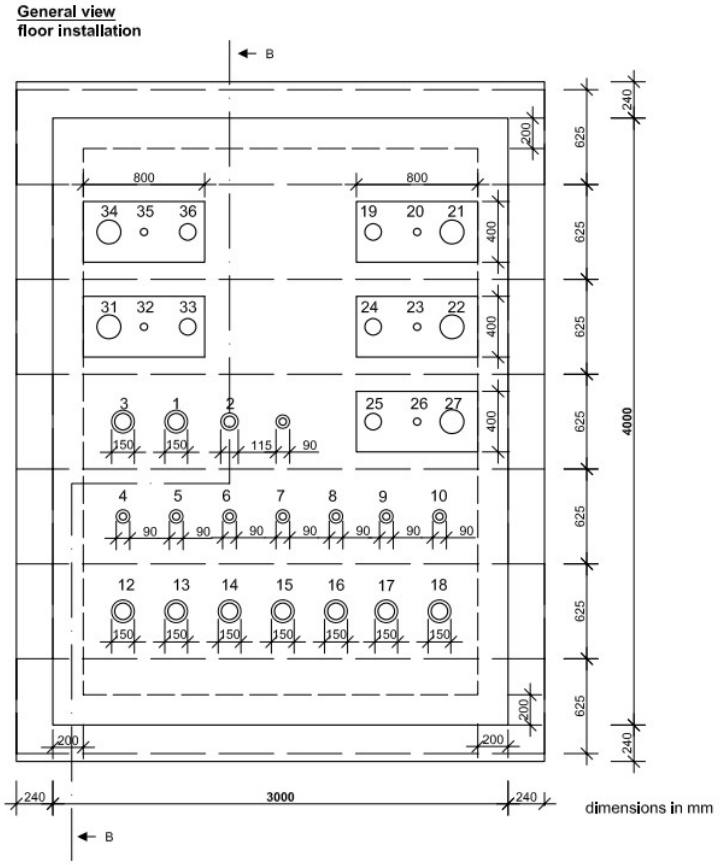
Combustible Pipes			
Pipe type	**Pipe Ø [mm]**	**Pipe wall thickness [mm]**	**Classification**
Friatec Friaphone	52	2,8	EI 120-U/C
	110	5,3	
Pipelife Master 3	50	1,8	EI 120-U/C
	110	3,0	
Poloplast POLO-KAL 3S	75	3,8	EI 120-U/C
	110	4,8	
Geberit Silent Pro	50	3,0	EI 120-U/C
	110	4,5	E 120-U/C EI 90-U/C
Geberit Silent PP	50	2,0	EI 120-U/C
Rehau Raupiano Plus	50	1,8	EI 120-U/C
PVC-U according to EN 1329-1, EN 1453-1, EN 1542-1, EN 15493, DIN 8061/8062, EN 1566-1	50	1,8 - 3,7	EI 120-U/C
	110	2,2 - 8,1	
PE 100 according to EN ISO 1555-2, EN 12201-2: +A1 also according to DIN 8074 and DIN 8075	50	1,8 - 4,6	EI 120-U/C
	110	2,7 - 10,0	
PP-H according to EN ISO 15874:2013 also according to DIN 8077:2007 and DIN 8078:2007	50	1,8 - 4,0	EI 120-U/C
	110	10,0	

Non-Combustible Pipes			
Pipe type	**Pipe Ø [mm]**	**Pipe wall thickness [mm]**	**Classification**
Steel	26,9	2,6	E 120-C/U EI 90-C/U

Electrical installations			
Type		**Ø [mm]**	**Classification**
Cable group 1		≤ 21 mm	EI 120
Cable group 4 - bundle	A.2.2	bundle ≤ 180 mm, cable ≤ 21 mm	EI 120
Cable group 4 - bundle	A.2.1	bundle ≤ 180 mm, cable ≤ 21 mm	E 120 EI 90
EIC-bundle (EIC: Ø 16 - 32 mm) with/ without cables Ø 21 mm		bundle ≤ 90 mm, EIC ≤ 32 mm, cables ≤ 21 mm	E 120 EI 60

A.3 Aerated concrete floor, according to Annex A.1.1.c

Penetration seal:
PYRO-SAFE® DG-SC intumescent fire protection filler on both sides, on a stuffed mineral wool backfilling of type Knauf Insulation LW. Depth of the intumescent fire protection filler: 25 mm. in an aerated concrete floor with a thickness of 150 mm (min. density 650±200 kg/m^3)

Floor installation	General view
	

Combustible Pipes			
Pipe type	**Pipe Ø [mm]**	**Pipe wall thickness [mm]**	**Classification**
Friatec Friaphone	52	2,8	EI 120-U/C
Pipelife Master 3	50	1,8	EI 120-U/C
	110	3,0	
Valsir Triplus	50	1,8	EI 120-U/C
	110	3,4	
Wavin SiTech+	32	1,8	EI 120-U/C
	110	3,4	
Poloplast POLO-KAL XS	40	1,8	EI 120-U/C
	110	3,4	
Poloplast POLO-KAL NG	50	2,0	EI 120-U/C
	110	3,4	
Poloplast POLO-KAL 3S	75	3,8	EI 120-U/C
	110	4,8	
Ostendorf Skolan dB	58	4,0	EI 120-U/C
	110	5,3	
Geberit Silent dB20	56	3,2	EI 120-U/C
	110	6,0	EI 90-U/C
Geberit Silent Pro	50	3,0	EI 120-U/C
	110	4,5	
Geberit Silent PP	50	2,0	EI 120-U/C
	110	3,6	
Rehau Raupiano Plus	50	1,8	EI 120-U/C
	110	2,7	
PVC-U according to EN 1329-1, EN 1453-1, EN 1542-1, EN 15493, DIN 8061/8062, EN 1566-1	50	1,8 - 3,7	EI 120-U/C
	110	3,2	
		8,1	E 120-U/C EI 90-U/C
PE 100 according to EN ISO 1555-2, EN 12201-2: +A1 also according to DIN 8074 and DIN 8075	50	1,8 - 4,6	EI 120-U/C
	110	2,7 - 10,0	
PP-H according to EN ISO 15874:2013 also according to DIN 8077:2007 and DIN 8078:2007	50	1,8 - 4,6	EI 120-U/C
	110	2,7 - 10	

Non-combustible Pipes			
Pipe type	**Pipe Ø [mm]**	**Pipe wall thickness [mm]**	**Classification**
Steel	≤ 42,4	2,3	EI 120-C/U
	≤ 48,3	2,1	EI 120-C/U* E 120-C/U* EI 90-C/U*
Copper*	≤ 15,0	1,0	EI 120-C/U
	≤ 18,0		E 120-C/U EI 90-C/U
	≤ 22,0		E 120-C/U EI 60-C/U

* Steel pipes 48,3 mm: EI 120-C/U floor 200 mm; EI 90-C/U floor 150 mm (zero distance); Copper pipes: floor 200 mm

Electrical installations		
Type	**Ø [mm]**	**Classification**
Cable group 1	≤ 21 mm	EI 120
Cable group 2	≤ 50 mm	E 120 EI 60
Cable group 4 - bundle	bundle ≤ 150 mm, cable ≤ 21 mm	EI 120
EIC-bundle (EIC: Ø 16 - 32 mm) with/ without cables Ø 21 mm	bundle ≤ 90 mm, EIC ≤ 32 mm, cables ≤ 21 mm	EI 120

Blank seal		
Type	**Ø [mm]**	**Classification**
Blank penetration	150,0	EI 120