

European Technical Assessment

**ETA-22/0723
of 28/04/2023**

English translation prepared by CSTB - Original version in French language

General Part

Nom commercial du kit
Trade name of the kit

NuMPF 5110F, NuDUCT 5110

Famille de produit
Product family

Produits de protection au feu :

**Kits et produits rigides, semi-rigides ou souples pour la
protection au feu**

Fire protective products:

Fire protective board, slab and mat products and kits

Titulaire
Manufacturer

NUVIA PROTECTION
1306 route d'Argent
38510 Morestel
France

Usine de fabrication
Manufacturing plant

NUVIA PROTECTION
1306 route d'Argent
38510 Morestel
France

Cette évaluation contient
This Assessment contains

7 pages incluant 3 pages d'annexes qui font partie intégrante de
cette évaluation.

*7 pages including 3 pages of annexes which form an integral part
of this assessment.*

Base de l'ETE
Basis of ETA

DEE 350142-00-1106
EAD 350142-00-1106

Specific Part

1 Technical description of the product

The kit is a mineral wool based system designed for the fire protection of rectangular ventilation and smoke extraction ducts with internal cross-section dimensions of the steel duct up to $1250 \times 1000 \text{ mm}^2$ ($w \times h$).

The kit is composed of two layers of NuMINE 6110F mineral wool glued with NuMINE 6210F and covered with NuCOAT 7110I fabric, glued with NuCOAT 3310I or NuCOAT 3210I (Table 1.1).

Designation	Reference	Material	Caracteristics	Supplier
Mineral fibre	NuMINE 6110F	AES Mineral fiber	$e = 38 \text{ mm}$ $\rho = 128 \text{ kg/m}^3$	NUVIA PROTECTION
Glue	NuMINE 6210F	Refractory glue	$\rho = 1800 \text{ kg/m}^3$	
Silicone glue	NuCOAT 3310I	Acetic silicone mastic	$\rho = 1050 \text{ kg/m}^3$	
Silicone glue	NuCOAT 3210I	Silicone mastic	$\rho = 1050 \text{ kg/m}^3$	
Fabric	NuCOAT 7110I	Silicone coated glass fabric	$e = 0,5 \text{ mm}$ $\rho_A = 600 \text{ g/m}^2$	
Stud rod		Steel	Section: $40 \times 1,2 \text{ mm}^2$	Trade
Stud		Steel threaded rod	M6, $L = 80 \text{ mm}$	
Clips		Steel	-	

Table 1.1: Components of the kit

2 Specification of the intended use

2.1 Intended use

According to the use categories defined by EAD, the intended use of the kit is:

Type 9: Fire protective products that contribute to the fire resistance of technical services assemblies in buildings.

The performances stated in Section 3 and in the Annex pages are only valid if the product is used according to the conditions and specifications given in Annex B.

2.2 Type of use

The fire protective kit can be used for the following environmental conditions:

Type of use	Environmental conditions
Type Z ₂	Intended for internal use
Type Z ₁	Intended for internal use, in high humidity environments ¹

2.3 Assumed working life

Provisions made in this European Technical Assessment are based on an assumed intended working life of 25 years, provided that the assembled product is subjected to appropriate use and maintenance in accordance with this ETA.

The real working life may be, in normal use conditions, considerably longer without major degradation affecting the basic requirements for works².

¹ This type of use applies for internal humidity class 5 in accordance with EN ISO 13788.

² The real working life of a product incorporated in a specific type of works depends on the environmental conditions to which that type of works is subjected, as well as on the particular conditions of the design, execution, use and maintenance of that type of works. Therefore, it cannot be excluded that in certain cases, the real working life of the product may also be shorter than referred to above.

Indications given regarding the working life cannot be interpreted as a guarantee given by the manufacturer or his representatives nor by EOTA nor by the Technical Assessment Body issuing this ETA based on EAD 350142-00-1106, but are regarded only as a means for choosing the appropriate products in relation to the expected economically reasonable working life of the works. They are also not appropriate to serve as a basis to deliver performance of the product for essential characteristics related to the basic requirement 7 for construction works.

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

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance	
Reaction to fire	Class according to EN 13501-1: B-s1,d0	
Resistance to fire	Class according to EN 13501-3 and EN 13501-4: See Annex B	
Durability and serviceability	Dimensional stability	
	NuMINE 6110F	According to EN 1604: $\Delta\varepsilon_l = 0,2\%$ $\Delta\varepsilon_b = 0,3\%$ $\Delta\varepsilon_d = 2,0\%$

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Component	Performance	
Content, emission and/or release of dangerous substances	NuCOAT 3310I	Skin Irrit.2 – H315	According to Regulation (CE) No. 1272/2008 of 16 December 2008
	NuMINE 6210F	SGH 05; Skin corr. 1A; H314.	
	NuCOAT 7110I NuMINE 6110F NuCOAT 3210I	The manufacturer has presented a written declaration precisising that the product and/or the components of the product do not contain any substances that are classified as dangerous according to Directive 67/548/EEC and Regulation (EC) No 1272/2008 and listed in the “indicative list on dangerous substances” of the Expert Group on Dangerous Substances EGDS ³ .	
Water permeability	Any	No performance assessed	

3.3 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Mechanical resistance and stability	No performance assessed

³ In addition to the specific conditions relative to content, emission and/or release of dangerous substances in this ETA, other requirements for products with the same intended use may exist (for example, transposition of European legislation and national laws, regulations and administrative provisions). In order to address the provisions of the Construction Products Regulation, these requirements must also be respected, when and where they apply.

3.5 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Thermal insulation	No performance assessed
Water vapour permeability	No performance assessed

4 Assessment and verification of constancy of performance (AVCP)

According to the Decision 1999/454/EC of the European Commission⁴, the system of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) given in the following Table applies.

Product	Intended use	Level or class	System
Fire protective products (including coatings)	Fire stopping and fire sealing products	Reaction to fire class B-s1,d0	3
		Any (except reaction to fire)	1

5 Technical details necessary for the implementation of the AVCP system, as planned in the relevant EAD

Technical details necessary for the implementation of the Assessment and verification of constancy of performance (AVCP) system are laid down in the control plan deposited at Centre Scientifique et Technique du Bâtiment.

The control plan including confidential information is not included in the published part of this ETA.

The manufacturer shall, on the basis of a contract, involve a notified body approved in the field of fire stopping and sealing products for issuing the certificate of conformity CE based on the control plan.

The Notified Body shall visit the factory at least twice a year for surveillance of the manufacturer.

The original French version is signed by

Anca Cronopol

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⁴ Official Journal of the European Communities L 178/52 of 14.7.1999

Annex A.1: Product description



DOMAINE PROTECTION DES EQUIPEMENT ET DES SYSTEMES CVC
APPLICATION PROTECTION INCENDIE DES CONDUITS

PRODUCT SHEET

NuDUCT 5110 Protection of ventilation ducts and shafts



NuDUCT 5110 is a flexible protection, ensuring protection up to 2 hours, depending on the configuration. It is adaptable to the environment. This protection is composed of mineral wool, glue refractory and a protection fabric. This complex has a thickness of 80 mm.

Key benefits

- Protection of ventilation and smoke extraction ducts with requirements E (fire protection), I (thermal insulation) and S (smoke protection)
- Watertightness
- Fire sectorisation
- Seismic resistance according to HN-20-E-53
- Fire prevention
- LOCA according to NFT 30903
- Decontaminable
- Resistant to water and aggressive liquids, according to

EN ISO 2812

- Interoperable with ventilation equipment Nuvia (valve...)
- Flexible protection
- Adaptable to the environment, compression is possible
- Repairable

Performance

- Fire resistance up to 3 h
- Weight: 19kg/m²

Technical data

- Qualification according to EN : NF EN 13501-2 - NF EN 1363-1 - NF EN 1366-1 - NF EN 1366-8
- Protection is PMUC
- Integration of the REX in the fields of application in order to cover the maximum number of configurations

Application

- Manual placement
- DIB waste

References

- EPR Flamanville 3
- EDF nuclear power plant
- CEA / CEA DAM
- Naval Group
- Orano

Ref : NUV_PNCI_2021 / F5102-NUC / Evénementiel technique changes reserved.

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Supporting your energy

NuMPF 5110F, NuDUCT 5110

Product description

Annex A.1

Annex A.2: Manufacturer's Product Installation Instructions:

1. Before fitting the NuMINE 6110F mineral wool on the duct, metal bars known as stud bars, are fixed to the duct using beads of NuCOAT 3310I or NuCOAT 3210I glue.
2. A sealing system is applied at the duct section joints. This system consists of a 200 mm-wide strip of NuCOAT 7110I fabric, fixed using beads of NuCOAT 3310I or NuCOAT 3210I glue with its coated side towards the inside (on the duct).
3. A first layer of 38 mm-thick NuMINE 6110F wool is then applied over the entire surface area of the duct; it is coated with NuMINE 6210F glue at a rate of 4,5 kg/m² and held in place by beads of polypropylene strings and intermediate clips on the bars stud bolts.
4. A second layer of 38 mm-thick NuMINE 6110F wool is then applied on top of the first layer of wool offset by at least 80 mm in relation to the first layer. It is coated with NuMINE 6210F glue at a rate of 4,5 kg/m² and held in place by beads of polypropylene strings and intermediate clips on the bars stud bolts.
5. A layer of silicone-finish fabric, reference NuCOAT 7110I is applied on top of the second layer of wool (with its coated side towards the outside or inside) and is held in place using beads of NuCOAT 3310I or NuCOAT 3210I glue. Finishing clips are installed on the stud bars stud bolts.

NuMPF 5110F, NuDUCT 5110

Manufacturer's Product Installation Instructions

Annex A.2

Annex B: Resistance to fire classification

Classification for use in building service installations

The kit is classified according to the following combinations of performance and class parameters (Table 5.1). No other classification is permitted.

E	I		t		(	ve		ho		i	↔	o	)		S
E	I		120		(	ve		ho		i	↔	o	)		S

Table 5.1: Resistance to fire classification according to EN 13501-3

Classification for use on components of smoke control systems

The kit is classified according to the following combinations of performance and class parameters (Table 5.2). No other classification is permitted.

E	I		t		(	ve	-	ho	)		S	Underpressure Pa	Multi
E	I		120		(	ve	-	ho	)		S	1500	multi

Table 5.2: Resistance to fire classification according to EN 13501-4

NuMPF 5110F, NuDUCT 5110

Resistance to fire classification

Annex B