



**ÉMI ÉPÍTÉSÜGYI MINŐSÉGELLENŐRZŐ INNOVÁCIÓS
NONPROFIT KORLÁTOLT FELELŐSSÉGŰ TÁRSASÁG**

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ÉMI Építészeti Minőségellenőrző Innovációs Nonprofit Kft.

ÉMI NON-PROFIT LIMITED LIABILITY COMPANY FOR QUALITY CONTROL AND INNOVATION IN BUILDING

ÉMI SOCIÉTÉ À BUT NON LUCRATIF POUR LE CONTRÔLE DE QUALITÉ ET L'INNOVATION DU BÂTIMENT, RESPONSABILITÉ LIMITÉE

ÉMI NON-PROFIT GESELLSCHAFT FÜR QUALITÄTSKONTROLLE UND INNOVATION IM BAUWESEN MIT BESCHRÄNKTER HAFTUNG

A-15/2010

UE: A-2401/2010

**ÉME (CTA)
CONSTRUCTION TECHNICAL APPROVAL**

Description of the product: Fire and smoke retarding doors of types NS Elite, NS Scudo, Novoglass and NS Elite Metal, of Novoferm Schievano make

Intended fields of application of the products: As internal fire retarding doors in rooms, office buildings, residential buildings, public buildings and other industrial and agricultural facilities of intermediate and intensive use.

Applicant: Novoferm Hungária Kereskedelmi Kft.
as Holder of the Construction Technical Approval (CTA) 1116 Budapest, Házgyári u. 1.

Manufacturer of the product: Novoferm Schievano S.R.L.
I-35012 Camposampiero, Padova, Via A. Volta, 1., Italy

ÉMI Nonprofit Kft. Identification of the product (SZRJ): 2.2.3.7.1. Fire retarding doors

Date of expiry of this ÉME (CAT): July 31, 2015

Budapest, April 18, 2011



Attila József Vida
General Director

This Construction Technical Approval consists of 10 pages and 1 public and 1 restricted, numbered and stamped attachment.

Clause: This document is issued by ÉMI Kft. to certify that this approval issued in the English language is identical in substance with the original document and may be used just like the original approval. In the case of a legal dispute, the contents of the original Hungarian document and its interpretation shall govern.

I. LEGAL REGULATIONS AND GENERAL CONDITIONS

1. This Technical Approval is issued by Építésügyi Minőségellenőrző Innovációs Kht. on the basis of the following:
 - joint decree 3/2003 (I. 25) BM-GKM-KvVM on the technical requirements, conformity certificate and the detailed regulations of distribution and application,
 - an appointment featuring in the Communiqué 16/1998 (IKK.8) IKIM,
 - the assessment of the test results detailed in the **ÉME (CTA) dated July 1, 2010 and valid till July 31, 2015**, marked identically with this ÉME, and in the **Follow-up Inspection Test Record marked A-2401/2010**.
2. The holder of the ÉME – a natural or legal entity, who (which) requested an ÉME directly or through a proxy, and for whom (which) ÉMI Kht. has issued the Technical Approval – is responsible for making sure that the product corresponds to the regulations identified in the ÉME and furthermore that the user receives all information required for the envisaged application.
3. ÉMI Kht. – as the approval organisation – is entitled to inspect whether the specifications of the ÉME are observed. The follow-up inspection may be carried out by ÉMI Kht. – at the Customer's cost – in a laboratory, at the production site or at the Customer's site.
4. The Technical Approval ÉME may only be used by its holder as a technical specification for issuing the conformity certificate. The holder of the ÉME may not confer this document upon any other party. The Technical Approval ÉME only covers a product manufactured at the production sites indicated.
5. If within the validity period of the ÉME an adapted and approximated European standard is issued to cover the product, then pursuant to joint decree 3/2003 (I. 25) BM-GKM-KvVM, ÉMI Kht. must withdraw the ÉME within one year of promulgation, unless the product deviates substantially from the specifications of the standard.
6. ÉMI Kht. may withdraw the ÉME covering the product, if the follow-up inspection may not be performed or the result of the inspection is unsatisfactory or the product is proven to be unsuitable for the envisaged purposes. The holder of the ÉME is obliged to report any changes in the characteristics or manufacturing circumstances of the product. Next, ÉMI Kht. decides whether the ÉME continues to be valid or a new procedure is to be initiated with the ÉME withdrawn. If tests are necessary to make this decision, ÉMI Kht. may suspend the validity of ÉME for the testing period.
7. The Technical Approval ÉME is issued by ÉMI Kht. in Hungarian, but – if this is requested by the Customer – authentic translations into English, German or French are also available.
8. The ÉME may only be copied or disclosed on a different data source in its entirety. If disclosed as an abstract, ÉMI Kht.'s written consent shall be obtained. If disclosed as an abstract, this shall be shown on the document. Any text or figures of an advertisement may not be contradictory to the substance of the Technical Approval and may not be the source of misunderstanding.
9. The ÉME as a technical specification may not replace other (e.g. health, construction authority) licences or certificates (e.g. Certificate of Conformity for Fire Safety Purposes, certificate of product conformity), required for distributing, using, installing or applying the product.
10. A conformity certificate issued on the basis of the ÉME does not provide eligibility either for the manufacturer or the distributor to show the CE conformity marking on the product or its packaging.

II. SPECIAL CONDITIONS RELATING TO THE CONSTRUCTION TECHNICAL APPROVAL

1. DATA

1.1. Place(s) of the product's manufacture

Novoferm Schievano S.R.L
 I-35012 Camposampiero, Padova, Via A. Volta, 1.
 Italy

1.2 Description of the product and its intended use

Internal fire retarding doors in rooms, office buildings, residential buildings, public buildings and other industrial and agricultural facilities of intermediate and intensive use.

2. CHARACTERISTICS AND TEST/ASSESSMENT METHODS

2.1. The product's technical characteristics, their approved values and test/assessment methods

Product characteristics and measuring units		Value	Test/ assessment method
2.1.1. Mechanical resistance and stability			
Mechanical resistance – resistance to a vertical load acting in the plane of the door leaf	Group N	750N FT1 Highly resistant (Class 3)	MSZ EN 952: 1999 <i>MSZ EN 1192:2000</i>
Mechanical resistance - resistance to a static load acting perpendicularly on the plane of the door leaf	Group N	200N ST1 Highly resistant (Class 1)	MSZ EN 948:1999 <i>MSZ EN 1192:2000</i>
Mechanical resistance - resistance to a dynamic load acting perpendicularly on the plane of the door leaf	Group mm	<2 mm DT1 Highly durable	MSZ EN 947:2000 <i>MSZ EN 1192:2000</i>
Mechanical resistance – resistance to an impact caused by a soft heavy object	Group J	Glazed: ÜL* *Unclassifiable Solid: 180 J / 800 mm ÜL1 Highly resistant to impacts (Class 4)	MSZ EN 949:2000 <i>MSZ EN 1192:2000</i>
Mechanical resistance – resistance to an impact caused by a hard object	Group J	Glazed: ÜK* *Unclassifiable Solid: 5J ÜK2 Medium resistance to impact (Class 3)	MSZ EN 950:2000 <i>MSZ EN 1192:2000</i>

2.1.2. Fire safety			
Fire proofness limit value / Fire protection class			
NS Elite-1A v. 2A-60		EI 60 / <u>Sa, Sm</u> / A1	
NS Elite-1A v. 2A-120	E, EW, EI / Sa, Sm / A-F	EI 120 / <u>Sa, Sm</u> / A1	MSZ EN 1634-1:2009 MSZ EN 1634-3:2005 MSZ EN 15269-20:2010 MSZ EN 13501-2:2008 OTSZ
NS Scudo-1A v. 2A-120		EI 120 <u>Sa, Sm</u> / C	
Novoglass-1A v. 2A-60		EI 60 / <u>Sa, Sm</u> / A1	
Novoglass-1A v. 2A-120		EI 120 / <u>Sa, Sm</u> / A1	
NS Elite Metal 1A v. 2A		<u>Sa, Sm</u> / A1	
2.1.3. Hygiene, health and environmental protection			
Cleanability	-	TB/TK	Mode of opening, documentation check
2.1.4. Safety of use			
Maintainability, repair ability	-	Replacement, renewing possibility	Documentation check
Ease of handling, Resistance to forces arising during use	N, Nm N	< 100 N; < 10 Nm 300 N; 500 N	MSZ ISO 8274:1992 MSZ EN 12046-2:2001
2.1.5. Noise and vibration control			
Control of airborne sound (depends on glazing, threshold design and panel)	group dB	LH*-LH3 *Without airborne sound control – Medium airborne sound control	MSZ EN ISO 140-3:1998 MSZ EN 717-1:2000
2.1.6. Energy saving and thermal protection			
/ Thermal insulation – There is no such requirement for internal doors /			
2.1.7. Durability			
Long lasting usability	(cycle)	100.000 cycles TR1 Highly durable	MSZ ISO 9379:1992
2.1.8. Other features			
Technical requirements depending on the material	class	(Class I)	MSZ 9384-9:1989
Resistance to changes in air humidity	class mm	max. 4 mm climate III	MSZ EN 1294:2001
Resistance to the effect of two different environments with two different humidity values	class mm	max. 4 mm climate III	MSZ EN 79:1992
Air tightness (Only for doors with threshold or closing sealing)	(m ³ /hm ²)	L4 Of low air tightness (Class 3)	MSZ EN 1026:2001 MSU EN 12207:2001

Note: Requirements as per the withdrawn standard MSZ 9386:1993.

3. REQUIREMENTS OF CONFORMITY CERTIFICATION

3.1. Mode(s) of conformity certification

System (1) in accordance with
 Council Directive 89/106/EEC, III.
 Committee resolution 1999/93/EC, and
 Attachment No.4 to joint BM-GKM-KvVM Decree 3/2003 (I. 25.).

3.2. Tasks of the manufacturer

3.2.1 In-plant production control (IPPC)

Manufacturer shall be obliged to set up, document and operate an IPPC system which ensures that the products distributed in the market comply in a certifiable way with the requirements of the present CTA at all times.

The manufacturer, whose quality assurance system complies with EN ISO 9001 and is supplemented with the requirements specified in this CTA and related to the in-plant production control process, can be regarded as a manufacturer whose in-plant production control system complies with the requirements.

In relation to the product the manufacturer's task is to design, operate and control an in-plant production control system which ensures the conformity of the products at all times.

The in-plant production control system should include the following:

- The tasks required in connection with the conformity certification procedure, and the appointment of the person responsible for these tasks, including keeping contact with the appointed accreditation organisation and the reporting commitments,
- The regulation concerning the qualification and training of the personnel, the manufacturing and testing equipment, the base materials, products delivered in, the production process, the handling of non-conformities and complaints, the inspection of the in-plant production control system by the manufacturer,
- The tests to be performed within the frames of the in-plant production control system in accordance with the production control inspection plan; the requirements concerning the frequency and methods of these tests are contained in the table below:

Table 1

Product characteristics tested	Test method	Frequency of test
Dimensions – length and width	Length measurement (mm)	By delivery lots
Mass	Mass measurement (kg; g)	By delivery lots
Density	Kg/m ³	By delivery lots
Emission of hazardous substance (coating...)	Concentration measurement	Once a year
Mechanical resistance – Resistance to impact caused by a hard object	Impact test MSZ EN 950:2000	Once a year

- The assessment of the results of tests performed within the frame of in-plant production control by comparing them with those of the first type test.

3.2.2. Provision of product characteristics accompanying the product

On the packaging or in the accompanying documents of the product the following should be indicated:

- Name and address of the manufacturer;
- Reference to the ÉME approval number;
- Product type; (door codes)
- dimensions; (definitions according to DIN, MSZ)
- colour of product; (surface coating, surface treatment)
- manufacturing date (or code referring to that);
- certified product features

3.2.3. Making out the Supplier's Conformity Statement

The statement to be made by the manufacturer should contain the following:

- Name, identification marking (brand name) and address of the construction product's supplier (manufacturer, distributor, reseller).
- Purpose (field of application) of the construction product and the data required for identification, date of production, type of product.
- Name and identification number of the appointed organisation on the basis of whose certification the conformity statement was issued.
- The identification of this CTA which the construction product is certified to comply with on the basis of a test.



- Validity period of the conformity statement.
- The (legible) name and position of the supplier's, manufacturer's, distributor's representative authorised to sign the conformity statement.
- The identification number and the date of issue of the conformity statement, and the registered signature of the person making out the document.

Supplementary information:

The Instructions for Use relating to the product (with an indication "handed over/available on the manufacturer's website", etc.).

Formal requirements in connection with the conformity statement:

No set form is specified for the statement. In general, it is a separate document that should be attached to the consignment or the bill of delivery during delivery. It may be of the same size and form as the other company documents of the manufacturer, or as the instructions for installation, handling and use supplied with the product.

3.3. Tasks of the appointed accreditation organisation

3.3.1 First type testing

During the first type testing the product characteristics listed below should be examined as described in subsection 2.1:

- Mechanical resistance (vertical load, static and dynamic torsion, impact by a soft heavy object and a hard object);
- Fire resistance limit value, Fire Protection Class;
- Ease of handling, resistance to forces occurring during use, safety
- Airborne sound control
- Long lasting durability
- Resistance to changes in air humidity and to the effect of two different air conditions

Using the results of the suitability tests performed for issuing this ÉME (CTA), the appointed organisation can compile the first type testing documentation, if the results of the tests comply with the requirements specified in the CTA.

3.3.2. Basic inspection of production control

3.3.2.1. Preliminary revision of the documentation describing the in-plant production control system

This revision is aimed at examining the manufacturer's documentation describing the production control procedure, the manufacturing process and the related checks and test methods.

During revision it should be assessed if the quality management of the products is appropriate and in compliance with the requirements specified in 3.2.1.

3.3.2.2. Basic on-site inspection of production control

During the basic inspection it should be checked and assessed if the manufacturing plant performs its activities in accordance with the production control documentation and if the checks and tests performed by the manufacturer are suitable for determining the conformity of the products. The basic inspection should also make sure if the manufacturer has all the means required for making the products in accordance with the requirements and if all the personal and material conditions for performing the production control procedure are provided.

3.3.3. Issuing the conformity certification

The appointed accreditation organisation – based on the assessment of the first type testing and the basic inspection of production control – will certify product conformity by issuing a CONFORMITY CERTIFICATION.

3.3.4. Maintaining the validity of the conformity certification

Based on the continuous supervision of the in-plant production control procedure, the appointed accreditation organisation will maintain the validity of the CONFORMITY CERTIFICATION issued.

The continuous supervision of the in-plant production control procedure will be performed once a year. Its content is the same as described for the basic inspection, with the exception that documentation revision will only cover the documents modified since the basic inspection.

4. SUITABILITY CONDITIONS, RECOMMENDATIONS

4.1.1. Product

The doors under review can be used according to the instructions for use prepared by the manufacturer.

Combined structures that are built together to form a single structure and those bigger in dimensions than the dimensions given in the choice of dimensions may only be applied under special control.

4.1.2. Installation (design, installation)

The fire retarding door structures under review may only be installed within internal spaces.

These door structures can only meet the air tightness requirements when fitted with a threshold.

If not fitted with a threshold, the opening doors can not be put in an air tightness category.

From the climatic point of view the doors of the types under review may be used in the following places:

Climatic category III: between rooms where the climatic values between the two rooms are within the following range:
 $t = 23\text{ C}^\circ$, $RL = 30\%$ and $t = 3\text{ C}^\circ$, $RL = 80\%$

The door types having no threshold may only be used in places for which there is no weighted airborne sound control requirement specified.

Depending on type, the doors of the types under review may be used in places where the weighted airborne sound control requirement is not greater than the value R_w specified for the given type.

The fire and smoke retarding doors of the types under review may be used without further tests in the following maximum dimensions:

	max. nominal dimension: (width / height)	max. nominal surface
<u>Built-in as a door taken into account with fire retarding limit value:</u>		
▪ NS Elite-1A-60 single	1450 mm / 2700 mm	3.5 m ²
▪ NS Elite-2A-60 double	2900 mm / 2700 mm	7 m ²
▪ NS Elite-1A-120 single	1450 mm / 2700 mm	3.5 m ²
▪ NS Elite-2A-120 double	2900 mm / 2700 mm	7 m ²
▪ NS Scudo-1A-60 single	1450 mm / 2700 mm	3.5 m ²
▪ NS Scudo-2A-60 double	2900 mm / 2700 mm	7 m ²
▪ NS Scudo-1A-120 single	1450 mm / 2700 mm	3.5 m ²
▪ NS Scudo-2A-120 double	2900 mm / 2700 mm	7 m ²
▪ Novoglass-1A-60 single	1350 mm / 2760 mm	3.36 m ²
▪ Novoglass-1A-60 single-leaf portal structure	1850 mm / 2700 mm	4.995 m ²

▪ Novoglass-2A-60 double	2760 mm / 2760 mm	5.52 m ²
▪ Novoglass-2A-60 double-leaf portal structure		
	2600 mm / 2700 mm	7.02 m ²
▪ Novoglass-1A-120 single	1300 mm / 2530 mm	3 m ²
▪ Novoglass-2A-120 double	2530 mm / 2530 mm	5.8 m ²

Built-in as a door taken into account with smoke retarding capability (Sa, Sm):

- Single-leaf door structures of types NS Elite, NS Scudo, Novoglass, NS Elite Metal with retrofitted or built-in automatic threshold and 1 or 3 strands of all-around sealing:

1550 mm / 2500 mm 3.5 m²

- Double-leaf doors of types NS Elite, NS Scudo, Novoglass, NS Elite Metal with retrofitted or built-in automatic threshold and 1 or 3 strands of all-around sealing:

2300 mm / 2500 mm 5.2 m²

Built-in as a door taken into account with fire and smoke retarding capability:

▪ NS Elite-1A-60 single	1450 mm / 2500 mm	3.5 m ²
▪ NS Elite-2A-60 double	2300 mm / 2500 mm	5.2 m ²
▪ NS Elite-1A-120 single	1450 mm / 2500 mm	3.5 m ²
▪ NS Elite-2A-120 double	2300 mm / 2500 mm	5.2 m ²
▪ NS Scudo-1A-60 single	1450 mm / 2500 mm	3.5 m ²
▪ NS Scudo-2A-60 double	2300 mm / 2500 mm	5.2 m ²
▪ NS Scudo-1A-120 single	1450 mm / 2500 mm	3.5 m ²
▪ NS Scudo-2A-120 double	2300 mm / 2500 mm	5.2 m ²
▪ Novoglass-1A-60 single	1350 mm / 2500 mm	3.36 m ²
▪ Novoglass-1A-60 single-leaf portal structure		
	1850 mm / 2700 mm	4.995 m ²
▪ Novoglass-2A-60 double	2300 mm / 2500 mm	5.2 m ²
▪ Novoglass-2A-60 double-leaf portal structure		
	2600 mm / 2700 mm	7.02 m ²
▪ Novoglass-1A-120 single	1300 mm / 2500 mm	3 m ²
▪ Novoglass-2A-120 double	2300 mm / 2500 mm	5.2 m ²

The maximum dimension of the doors of types NS Elite and NS Scudo (for each leaf) – if fire or smoke retarding capability is also a requirement: 500 × 600 mm, and d 564 mm

The maximum glass dimension that can be used in door structures of type Novoglass when fire and smoke retarding capability is a requirement is: 915×1722 mm, keeping a surface dimension of 0.96 m². Not more than two glass panes can be used in each door leaf.

When the door structures must be fire and smoke retarding, the following types of glazing can be used:

- Type of EI 60 glazing: Pyrobel 21 mm thick
- Type of EI 120 glazing: Pyrobel 51 mm thick

When the doors are required to have only Sa, Sm smoke retarding capability, the following types of glazing can also be used:

- 3/3 glued safety glass or thicker glass
- 8 mm hardened glass or thicker glass.

From fire safety point of view the products may be installed and used where the certified fire resistance limit value or the combustibility classification complies with the relevant regulation.

Only the doors of smoke retarding design may be built-in as certified smoke retarding doors (Sa, Sm) (sealing running around on three sides, automatic threshold).

The door structures for which a fire resistance limit value or smoke tightness is specified by a legal regulation or a fire protection technical requirement, should be designed to have an automatic closing device. If it is necessary to keep the doors open continuously, care should be taken in a way specified by the fire protection authority to close such doors in case of a fire.

The door structures considered to be used also for the purpose of evacuation – except for halls accommodating not more than 50 persons and the doors certified for such places – are allowed to open only in the direction of evacuation and they must not be locked while there are people inside.

The doors of rooms designed for a large number of people staying in them should be designed to have no handles, but in a way that they can be opened in a single movement and get fixed automatically when open.

For the door structures considered to be used during an evacuation the specifications for emergency opening devices and panic locks (relevant MSZ EN standards) should be met.

It is prohibited to build a threshold or stairs in the exit openings on the route of evacuation, except for rooms that are not designed for large number of people staying in them.

The certified fire resistance limit value applies to door structures mounted in concrete, reinforced concrete, brick, aerated concrete and fitted plaster board wall structures using the installation methods given in the installation guide.

If a higher fire resistance requirement is specified for the door structure than for the receiving wall structure, then the fire resistance limit value of the wall structure should be at least as much as that of the door.

4.1.3. Distribution

For the distribution of the products under review the products should always be supplied with an Instructions for Installation, Use and Maintenance and with the supplier's conformity statement.

The technical parameters contained in the conformity certification column of the tables and the recommended field of application should be indicated in the conformity statement attached to the product.

4.1.4. Use

During installation and use the instructions in the application guide provided by the manufacturer in Hungarian language should be followed.

During use the application specifications prepared by the manufacturer should be observed.

4.2. Recommendations

4.2.1. Recommendations for packaging, delivery and storage

The door structures should be transported and stored in such a way that no surface or structural or operational damage preventing the product's application be caused.

4.2.2. Recommendations for installation, use, maintenance and repair

When distributing and selling the door structures, the instructions for installation, handling and maintenance must always be supplied with the product in Hungarian language to inform the customer.

The products should only be installed and used as specified in these instructions.

5. FOLLOW-UP INSPECTION AND OTHER CONDITIONS

5.1. Follow-up inspections to be performed in the validity period of the Construction Technical Approval (ÉME)

Follow-up inspections to be performed in the validity period of the CTA:


The order relating to the performance of the follow-up inspection should be sent for the first time to ÉMI Kht not later than January 31, 2012. In case of a failure to fulfil the follow-up inspection obligation, the Construction Technical Approval will become invalid and ÉMI Kht will delete it from the database of valid Construction Technical Approvals.

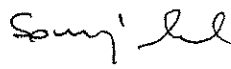
5.2. Other conditions of CTA

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6. ATTACHMENTS

- 6.1. Technical documentation of the product
- 6.2. Detailed product description (restricted attachment)


(János Róbert Makai)
Project Manager


(László Kocsis)
Scientific Head of Department 4