Notified Body No 1023
INSTITUTE FOR TESTING AND CERTIFICATION, Plc
Trida Tomase Bati 299, Louky, 763 02 Zlin, CZECH REPUBLIC

CERTIFICATE OF CONSTANCY OF PERFORMANCE

No 1023-CPR-0995 P

Construction product:	**Thermal insulating plates of mineral wool on synthetic binder: IZOMIN Facade-15, IZOMIN Venti-80, IZOMIN Roof-B, IZOMIN Roof-T, Brand name: IZOMIN™**
Product parameters:	Addendum No. **1/1023-CPR-0995P**
Placed on the market under the name or trade mark of:	**„Izomin" Limited Liability Company Promyshlennaya Str., land plot 6, Bldg.1, Stupino Moscow Region, 142800 Russian Federation**
Relevant standard(s):	**EN 13162:2012 + A1:2015 Thermal insulation products for buildings – Factory made mineral wool (MW) products – Specification**
Final Report No:	**753501695 / 2019**
Certificate first issued on:	**2019-06-25**

Notified Body No 1023, in compliance with Regulation (EU) No 305/2011 (CPR), attests that:

- All provisions relating to the Assessment and Verification of Constancy of Performance (AVCP) described in Annex ZA of the above harmonized standard(s) under **AVCP System 1** have been applied.
- The performance of the construction product above has been assessed to ensure the constancy of performance of the construction product.

The assessment of performance of the construction product and findings from the initial inspection of the manufacturing plant and factory production control are summarized in the above mentioned Final Report.

This certificate remains valid as long as neither the harmonised standard, the construction product, the AVCP methods, nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the Notified Body.

CE

Date of issue: **2019-06-25**

NOTIFIED BODY 1023 · INSTITUTE FOR TESTING AND CERTIFICATION

Jiří Heš
Representative of Notified Body No 1023

Addendum No. **1/1023-CPR-0995 P**

Product parameters:

IZOMIN Facade-15 /thicknesses: 50-200 mm, apparent density:110 kg/m^3(±10 %)/.
Reaction to fire class:A1. Intended use: Thermal insulation for buildings.

IZOMIN Venti-80 /thicknesses: 50-200 mm, apparent density:80 kg/m^3(±10 %)/.
Reaction to fire class:A1. Intended use: Thermal insulation for buildings.

IZOMIN Roof-B /thicknesses: 50-200 mm, apparent density:110 kg/m^3(±10 %)/.
Reaction to fire class:A1. Intended use: Thermal insulation for buildings.

IZOMIN Roof-T /thicknesses: 30-100 mm, apparent density:180 kg/m^3(±10 %)/.
Reaction to fire class:A1. Intended use: Thermal insulation for buildings.

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Jiří Heš
Representative of Notified Body No 1023

Date of issue: **2019-06-25**

Notified Body No 1023
INSTITUTE FOR TESTING AND CERTIFICATION, Plc
Trida Tomase Bati 299, Louky, 763 02 Zlin, CZECH REPUBLIC

CERTIFICATE OF CONSTANCY OF PERFORMANCE

No 1023-CPR-0994 P

Construction product:	**Thermal insulating plates of mineral wool on synthetic binder: IZOMIN ML, Brand name: IZOMIN™**
Product parameters:	Thicknesses: 35 - 151 mm, apparent density: 100 kg/m^3(±10 %)/. Reaction to fire class: A1. Intended use: Thermal insulation for buildings.
Placed on the market under the name or trade mark of:	**„Izomin" Limited Liability Company Promyshlennaya Str., land plot 6, Bldg.1, Stupino Moscow Region, 142800 Russian Federation**
Relevant standard(s):	**EN 13162:2012 + A1:2015 Thermal insulation products for buildings – Factory made mineral wool (MW) products – Specification**
Final Report No:	**753501695 / 2019**
Certificate first issued on:	**2019-06-25**

Notified Body No 1023, in compliance with Regulation (EU) No 305/2011 (CPR), attests that:

- All provisions relating to the Assessment and Verification of Constancy of Performance (AVCP) described in Annex ZA of the above harmonized standard(s) under **AVCP System 1** have been applied.
- The performance of the construction product above has been assessed to ensure the constancy of performance of the construction product.

The assessment of performance of the construction product and findings from the initial inspection of the manufacturing plant and factory production control are summarized in the above mentioned Final Report.

This certificate remains valid as long as neither the harmonised standard, the construction product, the AVCP methods, nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the Notified Body.

CE

Jiří Heš
Representative of Notified Body No 1023

Date of issue: **2019-06-25**

INSTITUTE FOR TESTING AND CERTIFICATION, INC.
třída Tomáše Bati 299, Louky, 763 02 Zlín, Czech Republic

FINAL REPORT

Reference No. 75 35 01695/2019

Applicant: :	**„Izomin“ Limited Liability Company Promyshlennaya Str., land plot 6, Bldg.1, Stupino Moscow Region, 142800 Russian Federation**
Product	**Thermal insulating plates of mineral wool on synthetic binder: IZOMIN ML, IZOMIN Facade-15, IZOMIN Venti-80, IZOMIN Roof-B, IZOMIN Roof-T, Brand name: IZOMIN ™**
Manufacturer :	„Izomin“ Limited Liability Company Promyshlennaya Str., land plot 6, Bldg.1, Stupino Moscow Region, 142800 Russian Federation
Elaborated by :	Milan Kovář
Issued on :	25th June 2019

NOTIFIED BODY 1023 · INSTITUTE FOR TESTING AND CERTIFICATION · 3

Jiří Heš
Representative of Notified Body No. 1023

1. Product specification, introduction

The thermal insulation boards of mineral wool (MW), with synthetic binder for buildings.
Declared reaction to fire class: A1
Basic characteristics of the products are shown in Table 1.

Table 1 – Basic properties of the products declared by the manufacturer (for EEA markets)

Product name	Declared apparent density ($kg.m^{-3}$)	Standard board thickness (mm)
IZOMIN ML	100 (± 10%)	35, 102, 122, 151
IZOMIN Facade-15	110 (± 10%)	50 to 200
IZOMIN Venti-80	80 (± 10%)	50 to 200
IZOMIN Roof-B	110 (± 10%)	50 to 200
IZOMIN Roof-T	180 (± 10%)	30 to 100

2. Assessment and verification of constancy of performance according to Regulation (EU) No 305/2011 of the European Parliament and of the Council, as amended

Thermal insulation boards of mineral wool as construction products are assessed on the basis of relevant clauses of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9th March 2011 laying down harmonised conditions for marketing of construction products, and repealing Council Directive 89/106/EEC, as amended (called „CPR")

2.1. System of assessment and verification of constancy of performance (AVCP)

The submitted products are subject to system of AVCP 1 (1 + 3) of the CPR (Annex V).

The AVCP was carried out according to Annex ZA.3.1 of the standard **ČSN EN 13162+A1 (EN 13162:2012 + A1:2015)** and Annex B of ČSN EN 13172:2012 (EN 13172:2012)

Remark:

European standards after their becoming available are subsequently adopted as national standards. All the ČSN EN standards cited in this report were issued with the same number as the EN standards with equal requirements.

2.2. Indicators specifying basic requirements for construction works

The initial type testing (type testing) was conducted by the notified testing laboratory and it covered the following range of relevant properties (performance) according to Table ZA.3.2 of the ČSN EN 13162+A1 (EN 13162+A1)

- Reaction to fire (the manufacturer declares A1 class)
  - heat of combustion according to ČSN EN ISO 1716
  - non-combustibility according to ČSN EN ISO 1182
  - classification according to ČSN EN 13501-1+A1
- Thermal resistance (not for IZOMIN ML, thicknesses of 102, 122 and 151 mm) and thermal conductivity according to ČSN EN 12667
- Thickness according to ČSN EN 823 (method B1)
- Compressive strength or compressive stress at 10% deformation according to ČSN EN 826
- Point load according to ČSN EN 12430 (not for IZOMIN ML)
- Short term water absorption by partial immersion (W_P) according to ČSN EN 1609 (method A)

Release of dangerous substances has not been determined because of the absence of requirements.

Changes in case of IZOMIN ML:

Point load was not tested with regard to way of the product use.

Thermal resistance (of 102 mm, 122 mm and 151 mm board thicknesses was not determined, with regard to way of the product use (for lamella products – sandwich-panels with metal coverings)

Thermal conductivity and compressive strength/compressive stress at 10% deformation (of 102 mm, 122 mm and 151 mm board thicknesses) were measured in direction of fibres (with regard to way of the product use) on test specimens (500 x 500 x 50) mm, prepared from ML boards

Compressive stress at 10% deformation was measured on test specimens (100 x 100 x 100) mm, prepared from ML boards.

2.3 Sampling place and number of samples taken

The sampling of the test samples has been carried out by the representative of the Notified Body No. 1023 on the basis of Clause B.2.3 of ČSN EN 13172 and Clause 5.1 of ČSN EN 13162+A1. The sampling is documented:

- Sampling Sheet, elaborated by the Notified Body´s representative on 12th February 2019

The number of the samples received was as follows:

- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN ML - 4 pcs of (1500 x 627 x 35) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN ML - 4 pcs of (1500 x 627 x 102) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN ML - 4 pcs of (1500 x 627 x 122) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN ML - 4 pcs of (1500 x 627 x 151) mm

- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Facade-15 - 4 pcs of (1000 x 500 x 50) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Facade-15 - 4 pcs of (1000 x 500 x 100) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Facade-15 - 4 pcs of (1000 x 500 x 150) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Facade-15 - 4 pcs of (1200 x 1000 x 200) mm

- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Venti-80 - 4 pcs of (1000 x 500 x 50) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Venti-80 - 4 pcs of (1000 x 500 x 80) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Venti-80 - 4 pcs of (1000 x 500 x 100) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Venti-80 - 4 pcs of (1200 x 1000 x 200) mm

- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Roof-B - 4 pcs of (1000 x 500 x 50) mm

- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Roof-B - 4 pcs of (1000 x 500 x 100) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Roof-B - 4 pcs of (1000 x 500 x 180) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Roof-B - 4 pcs of (1200 x 1000 x 200) mm

- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Roof-T - 4 pcs of (1000 x 500 x 30) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Roof-T - 4 pcs of (1000 x 500 x 40) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Roof-T - 4 pcs of (1000 x 500 x 50) mm
- Thermal insulation boards of mineral wool (with synthetic binder) IZOMIN Roof-T - 4 pcs of (1000 x 500 x 100) mm

The samples were delivered and registered under the registration numbers 75 35 01695/1.1 to 75 35 01695/5.4 on 22nd March 2019.

2.4 Place and date of testing

Tests have been performed in the following independent laboratories:

- Institut pro testování a certifikaci (ITC),a.s., Accredited laboratory No. 1004, NB (Notified Body) No. 1023 Zlín (April 2019)
- Centrum stavebního inženýrství (CSI), a.s. Prague, site Zlin, Accredited laboratory No.1007.1, NB 1390 (April - May 2019)
- Centrum stavebního inženýrství (CSI), a.s. Prague, Fire Technical Laboratory, Accredited laboratory No.1007.4, NB 1390 (May 2019)

2.5 Test results

The test results are given in Tables 2 to 6.
Notes:
[a] – 1, 2, 3, 4 – different dates of the manufacturing (and board thicknesses)

Table 2 – Test results of the MW boards IZOMIN ML

Characteristic (Property)	Measuring unit	Determined values				Required (declared) values (class) of reaction to fire
		1 a) 35 mm	2 a) 102 mm	3 a) 122 mm	4 a) 151 mm	
Heat combustion (PCS)	$MJ.kg^{-1}$	0.9				≤ 2.0
ΔT (mean value)	°C	9.5				≤ 30
Δm (mean value)	%	3.0				≤ 50
t_f (mean value)	s	0				0
Reaction to fire class	-	Class A1				Class A1
Thermal conductivity	$W.m^{-1}.K^{-1}$	0.0366	0.0390 x)	0.0401 x)	0.0401 x)	-
Thermal resistance (R)	$m^2.K.W^{-1}$	1.00	-	-	-	-
Thickness - Nominal thickness d_D= 35 mm - Nominal thickness d_D= 102 mm - Nominal thickness d_D= 122 mm - Nominal thickness d_D= 151 mm	mm	 37.0 - - -	 - 101.5 - -	 - - 122.5 -	 - - - 153.5	-
Compressive stress at 10% deformation	kPa	37 31	56 x) -	74 x) -	64 x) -	-
Short term water absorption by partial immersion (W_P)	$kg.m^{-2}$	0.27	0.20	0.22	0.22	-

Remark: x) – measured fiber direction

Table 3 – Test results of the MW boards IZOMIN Facade-15

Characteristic (Property)	Measuring unit	Determined values				Required (declared) values (class) of reaction to fire
		1[a)] 50 mm	2[a)] 100 mm	3[a)] 150 mm	4[a)] 200 mm	
Heat combustion (PCS)	$MJ.kg^{-1}$	1.0				≤ 2.0
ΔT (mean value)	°C	14.0				≤ 30
Δm (mean value)	%	2.6				≤ 50
t_f (mean value)	s	0				0
Reaction to fire class	-	Class A1				Class A1
Thermal conductivity	$W.m^{-1}.K^{-1}$	0.0349	0.0369	0.0367	0.0364	-
Thermal resistance (R)	$m^2.K.W^{-1}$	1.41	2.77	4.15	5.68	-
Thickness - Nominal thickness d_D= 50 mm - Nominal thickness d_D= 100 mm - Nominal thickness d_D= 150 mm - Nominal thickness d_D= 200 mm	mm	 51.5 - - -	 - 101.5 - -	 - - 151.0 -	 - - - 204.5	-
Compressive stress at 10% deformation	kPa	15 13	49 44	53 153	43 40	-
Point load	N	178	513	712	517	-
Short term water absorption by partial immersion (W_P)	$kg.m^{-2}$	0.08	0.05	0.14	0.21	-

Table 4 – Test results of the MW boards IZOMIN Venti-80

Characteristic (Property)	Measuring unit	Determined values				Required (declared) values (class) of reaction to fire
		1[a)] 50 mm	2[a)] 80 mm	3[a)] 100 mm	4[a)] 200 mm	
Heat combustion (PCS)	$MJ.kg^{-1}$	0.7				≤ 2.0
ΔT (mean value)	°C	29.1				≤ 30
Δm (mean value)	%	3.9				≤ 50
t_f (mean value)	s	0				0
Reaction to fire class	-	Class A1				Class A1
Thermal conductivity	$W.m^{-1}.K^{-1}$	0.0359	0.0360	0.0364	0.0356	-
Thermal resistance (R)	$m^2.K.W^{-1}$	1.39	2.21	2.78	5.68	-
Thickness - Nominal thickness d_D= 50 mm - Nominal thickness d_D= 80 mm - Nominal thickness d_D= 100 mm - Nominal thickness d_D= 200 mm	mm	 50.5 - - -	 - 81.0 - -	 - - 102.0 -	 - - - 201.5	-
Compressive stress at 10% deformation	kPa	51 33	29 22	19 20	20 21	-
Point load	N	405	198	204	237	-
Short term water absorption by partial immersion (W_P)	$kg.m^{-2}$	0.19	0.06	0.23	0.15	-

Table 5 – Test results of the MW boards IZOMIN Roof-B

Characteristic (Property)	Measuring unit	Determined values				Required (declared) values (class) of reaction to fire
		1[a)] 50 mm	2[a)] 100 mm	3[a)] 180 mm	4[a)] 200 mm	
Heat combustion (PCS)	$MJ.kg^{-1}$	0.8				≤ 2.0
ΔT (mean value)	°C	11.6				≤ 30
Δm (mean value)	%	2.8				≤ 50
t_f (mean value)	s	0				0
Reaction to fire class	-	Class A1				Class A1
Thermal conductivity	$W.m^{-1}.K^{-1}$	0.0364	0.0366	0.0350	0.0342	-
Thermal resistance (R)	$m^2.K.W^{-1}$	1.35	2.77	5.25	6.06	-
Thickness - Nominal thickness d_D= 50 mm - Nominal thickness d_D= 100 mm - Nominal thickness d_D= 180 mm - Nominal thickness d_D= 200 mm	mm	 51.0 - -	 - 101.0 - -	 - - 181.0 -	 - - - 205.0	-
Compressive stress at 10% deformation	kPa	37 37	51 35	37 33	38 38	-
Point load	N	398	356	373	628	-
Short term water absorption by partial immersion (W_P)	$kg.m^{-2}$	0.05	0.05	0.15	0.22	-

Table 6 – Test results of the MW boards IZOMIN Roof-T

Characteristic (Property)	Measuring unit	Determined values				Required (declared) values (class) of reaction to fire
		1[a)] 30 mm	2[a)] 40 mm	3[a)] 50 mm	4[a)] 100 mm	
Heat combustion (PCS)	$MJ.kg^{-1}$	0.8				≤ 2.0
ΔT (mean value)	°C	12.5				≤ 30
Δm (mean value)	%	2.7				≤ 50
t_f (mean value)	s	0				0
Reaction to fire class	-	Class A1				Class A1
Thermal conductivity	$W.m^{-1}.K^{-1}$	0.0375	0.0370	0.0379	0.0388	-
Thermal resistance (R)	$m^2.K.W^{-1}$	0.78	1.09	1.29	2.61	-
Thickness - Nominal thickness d_D= 30 mm - Nominal thickness d_D= 40 mm - Nominal thickness d_D= 50 mm - Nominal thickness d_D= 100 mm	mm	 30.0 - - -	 - 41.5 - -	 - - 51.0 -	 - - - 103.0	-
Compressive stress at 10% deformation	kPa	56 33	49 43	78 73	94 93	-
Point load	N	1039	698	736	1006	-
Short term water absorption by partial immersion (W_P)	$kg.m^{-2}$	0.20	0.24	0.49	0.54	-

2.6 Comparison of the product properties (performance) with specified requirements

Requrements of the ČSN EN 13162+A1 harmonized standard for declared reaction to fire class A1 were fulfiled.

3. Initial inspection of the manufacturing plant and of the factory production control (FPC)

As agreed with the manufacturer, the initial inspection of the manufacturing plant and assessment of the manufacturer´s FPC were carried out by Notified Body No. 1023´s representative in the manufacturing plant „Izomin" LLC, Stupino, according to Clauses 5 and B.2.2 of ČSN EN 13172 and Annex B of ČSN EN 13162 on 12th February 2019.

The initial inspection is documented by:

- Initial inspection report No. 753501695, elaborated by NB No. 1023 – ITC, a.s. Zlín on 12th February 2019

4.Continuous (continuing) surveillance

A continuous surveillance of proper operation of the manufacturer´s factory production control at the manufacturing plant is carried out twince a year.

5. Conclusion

The NB 1023 confirms that all provisions concerning the AVCP described in the Annex ZA of the ČSN EN 13162 +A1 (EN 13162:2012+A1:2015) standard, under system 1 (1 + 3) are applied and the products fulfil the prescribed requirements.

The manufacturer´s FPC corresponds to the technical documentation and is in accordance with the harmonized technical specification and ensures the achievement and maintenance of the declared properties of the product.

The products meet requirements for the issue of a **Certificate(s) of Constancy of Performance by the Notified Body No. 1023.**

6. A list of documents used to elaborate the Final Report

- Application No. 753501695 for assessment of CE-marked construction products
- ČSN EN 13172:2012: Tepelně izolační výrobky – Hodnocení shody (Thermal insulation products – Evaluation of conformity)
- ČSN EN 13162 + A1(2015) Tepelně izolační výrobky pro stavebnictví – Průmyslově vyráběné výrobky z minerální vlny (MW) – Specifikace (Thermal insulation products for buildings – Factory made mineral wool (MW) products – Specification)

- Test report of Accredited laboratory, reference No. 753501695-01, elaborated by ITC, a.s., Accredited laboratory No. 1004 Zlín, on 03/05/2019
- Test report No. 119/19, elaborated by Centrum stavebního inženýrství (CSI), a.s. Prague, site Zlin, Accredited laboratory No.1007.1, NB 1390, on 21/05/2019
- Test Reports, reference No. 19/440/P162 to No. 19/440/P166, elaborated by Centrum stavebního inženýrství a.s., Fire Technical Laboratory, Prague, on 21/05/2019
- Classification Report using Results of Reaction to Fire No. 75 35 01695K/2019, elaborated by ITC, a.s. Zlín, on 21/05/2018
- Sampling record, elaborated by the Notified Body´s representative on 12/02/2019
- Initial inspection report No. 753501695, elaborated by NB No. 1023 – ITC, a.s. Zlín on 12/02/2019
- Technical description of the products