



# СЕРТИФИКАТ СООТВЕТСТВИЯ

№ РОСС RU.AM05.H12990

Срок действия с 28.04.2022 по 27.04.2025

№ 0016033

ОРГАН ПО СЕРТИФИКАЦИИ RA.RU.11AM05

Орган по сертификации продукции ООО "Центр сертификации и экспертизы "Тверьэкс". Адрес: 390013, РОССИЯ, Рязанская обл, Рязань г, Ситниковская ул, дом 69а, 38. Телефон 8-916-423-9885, адрес электронной почты: os-tverex@yandex.ru

ПРОДУКЦИЯ Материал «Армофол ТК». Серийный выпуск.

код ОК  
24.42.25.000

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ

ТУ 1811-081-04696843-2005

код ТН ВЭД  
7607 20 100 0

ИЗГОТОВИТЕЛЬ Акционерное общество "Завод ЛИТ". ОГРН: 1027601047253, ИНН: 7608007274, КПП: 760801001. Адрес: 152020, РОССИЯ, Ярославская область, г. Переславль-Залесский, ул. Советская, д. 1, телефон: (48535) 3-08-71, факс (48535) 3-22-66.

СЕРТИФИКАТ ВЫДАН Акционерное общество "Завод ЛИТ". ОГРН: 1027601047253, ИНН: 7608007274, КПП: 760801001. Адрес: 152020, РОССИЯ, Ярославская область, г. Переславль-Залесский, ул. Советская, д. 1, телефон: (48535) 3-08-71, факс (48535) 3-22-66.

НА ОСНОВАНИИ

Протокол испытаний № 003/Е-28/04/22 от 28.04.2022 года, выданный Испытательной лабораторией "Вега-тест" (аттестат РОСС RU.31578.04ОЛН0.ИЛ23)

## ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ

Схема сертификации: 1с



Руководитель органа

Эксперт

подпись

М.А. Шуршова

инициалы, фамилия

А.А. Белянин

инициалы, фамилия

Сертификат не применяется при обязательной сертификации



**INSTITUTE FOR TESTING AND CERTIFICATION, a.s.**  
třída Tomáše Bati 299, Louky, 763 02 Zlín, Czech Republic  
Division CSI – Centre of Civil Engineering



**Notified Body No. 1023**

# **CERTIFICATE OF CONSTANCY OF PERFORMANCE**

**1023-CPR-1213 P**

Construction product: **Factory made mineral wool products ROCKWOOL  
used for building equipment and industrial  
instalations**  
**according to list given in the annex to the certificate**

Placed on the market under  
the name or trade mark of: **ROCKWOOL Polska, Sp. z.o.o.**  
ul. Kwiatowa 14, PL 66-131 Cigacice  
Poland

Manufacturing plant: **ROCKWOOL Polska, Sp. z.o.o.**  
ul. Kwiatowa 14, PL 66-131 Cigacice (product line CIG1;  
CIG4)  
Poland

Relevant standard(s): **EN 14303:2009+A1:2013**

Certification report No.: **755200061 / 2022**

Certificate first issued on: **2012-08-08**

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 factory production control conducted by the manufacturer 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 Certification 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.

**This document replace Certificate of Constancy of Performance 1390-CPR-0342/12/P.**



Issued in Prague:

**2022-02-21**



Mgr. Jiří Heš

Representative of Notified Body No. 1023



**Annex to the Certificate of Constancy of Performance 1023-CPR-1213 P**  
The certificate covers the following products of  
**ROCKWOOL Polska, Sp. z o.o., ul. Kwiatowa 14, PL 66-131 Cigacice, PL**  
(production line CIG1; CIG4)

Page 1 of 1

**Tab. 1**

| Trade mark                                   | Thermal conductivity<br>$W.m^{-1}.K^{-1}$ | Reaction to fire | Type code according to EN 14303           |
|--|---|------------------|---|
| ALU LAMELLA MAT<br>Larock 40 ALS<br>KLIMAMAT | See Tab. 2                                | A1               | MW - EN 14303 – T4 – ST(+)250 – WS1 – MV2 |
| KLIMAFIX<br>Ventizol                         | See Tab. 3                                | A2-s1;d0         | MW - EN 14303 – T4 – ST(+)50 – WS1 – MV2  |

**Tab. 2**

| Trade mark                                   | $\lambda_d$ Thermal dependence of thermal conductivity $W.m^{-1}.K^{-1}$ |       |       |       |
|--|--|-------|-------|-------|
|  | 10   | 50    | 150   | 250   |
| ALU LAMELLA MAT<br>Larock 40 ALS<br>KLIMAMAT | 0,039  | 0,050 | 0,083 | 0,134 |

**Tab. 3**

| Trade mark           | $\lambda_d$ Thermal dependence of thermal conductivity $W.m^{-1}.K^{-1}$ |       |
|----------------------|--|-------|
|                      | 10   | 50    |
| KLIMAFIX<br>Ventizol | 0,039  | 0,050 |



Mgr. Jiří Heš   
Representative of Notified Body No. 1023



# СЕРТИФИКАТ СООТВЕТСТВИЯ

№ РОСС RU.НВ61.Н30434

Срок действия с 11.11.2021 по 10.11.2024

№ 0014062

ОРГАН ПО СЕРТИФИКАЦИИ RA.RU.11НВ61

Орган по сертификации ООО "ЦЕТРИМ". Адрес: 153000, РОССИЯ, Ивановская область, город Иваново, улица Богдана Хмельницкого, дом 36В. Телефон +7 4932773165. Адрес электронной почты info@cetrim.ru

**ПРОДУКЦИЯ** Материал изолирующий покровный "ТИТАНФЛЕКС®". Серийный выпуск.

код ОК  
22.23.19.000

**СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ**  
СТО 04696843-001-2015

код ТН ВЭД  
7607 20 100 0

**ИЗГОТОВИТЕЛЬ** Акционерное общество "Завод ЛИТ". ОГРН: 1027601047253, ИНН: 7608007274, КПП: 760801001. Адрес: 152020, РОССИЯ, Ярославская область, г. Переславль-Залесский, ул. Советская, д. 1, телефон: (48535) 3-08-71, факс (48535) 3-22-66.

**СЕРТИФИКАТ ВЫДАН** Акционерное общество "Завод ЛИТ". ОГРН: 1027601047253, ИНН: 7608007274, КПП: 760801001. Адрес: 152020, РОССИЯ, Ярославская область, г. Переславль-Залесский, ул. Советская, д. 1, телефон: (48535) 3-08-71, факс (48535) 3-22-66.

## НА ОСНОВАНИИ

Протокол испытаний № 004/G-11/11/21 от 11.11.2021 года, выданный Испытательной лабораторией "АБ-тест" (аттестат РОСС RU.31578.04ОЛНО.ИЛ21)

## ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ

Схема сертификации: 1с



Руководитель органа

подпись

П.Г. Рухлядев

инициалы, фамилия

Эксперт

подпись

В.П. Широков

инициалы, фамилия

Сертификат не применяется при обязательной сертификации

# EC-CERTIFICATE OF CONFORMITY

0751-CPD.2-007.0-03-01/12

In compliance with the Directive 89/106/EEC of the Council of European Communities of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to the construction products (Construction Products Directive - CPD), amended by the Directive 93/68/EEC of the Council of European Communities of 22 July 1993, it has been stated that the construction product

## Factory made mineral wool (MW) products

as thermal insulation products for building equipment and industrial installations  
for uses subject to regulations on reaction to fire

(product parameters and classes, description of the product, the declaration and the use of the product  
is presented in the annex)

placed on the market by

**Rockwool Technical Insulation**  
Delfstoffenweg 2  
6045 JH Roermond / Netherlands

and produced in the factory

**Deutsche Rockwool Mineralwoll GmbH & Co. OHG**  
Ruhrstraße 13  
86633 Neuburg / Germany

is submitted by the manufacturer to a factory production control and to the further testing of samples taken at the factory in accordance with a prescribed test plan and that the notified body

**0751 - Forschungsinstitut für Wärmeschutz e.V. München**

has performed the initial type-testing for the relevant characteristics of the product, the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control.

This certificate attests that all provisions concerning the attestation of conformity and the performances described in Annex ZA of the standard

**EN 14303:2009**  
with the Annex B and C of EN 13172:2008  
and Section 5 of EN ISO 13787:2003

were applied and that the product fulfils all the prescribed requirements.

This certificate was first issued on June 29, 2012 and remains valid as long as the conditions laid down in the harmonised technical specification in reference or the manufacturing conditions in the factory or the Factory Production Control itself are not modified significantly.

Gräfelfing, June 29, 2012



Head of Certification Body

  
Dr.-Ing. Martin Zeitler

A publication of extracts or a referring to the EC-Certificate of conformity and its annex requires the prior written approval of FIW München.

Information of the validity of the certificate is available at [www.fiw-muenchen.de](http://www.fiw-muenchen.de)



Factory: **Deutsche Rockwool Mineralwoll GmbH & Co. OHG, Ruhrstraße 13, 86633 Neuburg, Germany**  
 Construction product(s): **Factory made mineral wool (MW) products according to EN 14303:2009**  
 Intended use: **Thermal insulation products for building equipment and industrial installations**  
 Level(s) or class(es) reaction to fire: **for uses subject to regulations on reaction to fire A1/A2. Products for which a clearly identifiable stage in the production process results in an improvement of the reaction to fire classification by limiting of organic material**  
 Attestation of conformity system: **1**

**Table 1: Designation and description of the products**

| No. | Product   |  |   |             | Nominal thickness<br>in mm | Product data sheet |          | Reaction to fire class<br>EN 13501-1 | Designation code                  | Thermal conductivity according Table 2a/b | Additional performance<br>**) |
|-----|-----------|--|---|-------------|----------------------------|--------------------|----------|--------------------------------------|-----------------------------------|---|-------------------------------|
|     | Form      | Type (old)   | Description   | produced on |                            | Name               | Dated    |                                      |                                   |   |                               |
| 1   | Wired Mat | ProRox WM 940<br>(ProRox WM 70)<br>ProRox WM 940 S<br>(ProRox WM 70 S)<br>ProRox WM 940 SW<br>(ProRox WM 70 SW)<br>*)    | Non-combustible mineral wool wired mat with galvanized or stainless steel mesh and stitching wire | NEU 4       | 30 – 120<br>Load: 1000 Pa  | PDS 051            | 21.05.12 | A1                                   | MW EN 14303-T2-ST(+)-580-WS1-CL10 | TC1                                       | acoustic                      |
| 2   | Wired Mat | ProRox WM 950<br>(ProRox WM 80)<br>ProRox WM 950 S<br>(ProRox WM 80 S)<br>ProRox WM 950 SW<br>(ProRox WM 80 SW)<br>*)    | Non-combustible mineral wool wired mat with galvanized or stainless steel mesh and stitching wire | NEU 4       | 30 – 120<br>Load: 1000 Pa  | PDS 052            | 21.05.12 | A1                                   | MW EN 14303-T2-ST(+)-640-WS1-CL10 | TC2                                       | acoustic                      |
| 3   | Wired Mat | ProRox WM 960<br>(ProRox WM 100)<br>ProRox WM 960 S<br>(ProRox WM 100 S)<br>ProRox WM 960 SW<br>(ProRox WM 100 SW)<br>*) | Non-combustible mineral wool wired mat with galvanized or stainless steel mesh and stitching wire | NEU 4       | 30 – 120<br>Load: 1000 Pa  | PDS 053            | 21.05.12 | A1                                   | MW EN 14303-T2-ST(+)-660-WS1-CL10 | TC3                                       | acoustic                      |



| No | Product   |   |   |             | Nominal thickness<br>in mm | Product data sheet |          | Reaction to fire class<br>EN 13501-1 | Designation code                                 | Thermal conductivity<br>according<br>Table 2a/b | Additional performance<br>**) |
|----|-----------|---|---|-------------|----------------------------|--------------------|----------|--------------------------------------|--|---|-------------------------------|
|    | Form      | Type (old)  | Description   | produced on |                            | Name               | dated    |                                      |  |   |                               |
| 4  | Wired Mat | ProRox WM 970 (ProRox WM 128)<br>ProRox WM 970 S (ProRox WM 128 S)<br>ProRox WM 970 SW (ProRox WM 128 SW *) | Non-combustible mineral wool wired mat with galvanized or stainless steel mesh and stitching wire | NEU 4       | 30 – 120<br>Load: 1000 Pa  | PDS 054            | 21.05.12 | A1                                   | MW EN 14303-T2-ST(+)<br>680-WS1-CL10             | TC4   | acoustic                      |
| 5  | Wired Mat | ProRox WM 980 (ProRox WM HT)<br>ProRox WM 980 S (ProRox WM HT S)<br>ProRox WM 980 SW (ProRox WM HT SW *)    | Non-combustible mineral wool wired mat with galvanized or stainless steel mesh and stitching wire | NEU 4       | 100<br>Load: 1000 Pa       | PDS 055            | 21.05.12 | A1                                   | MW EN 14303-T2-ST(+)<br>720-WS1-CL10             | TC5   | acoustic                      |
| 6  | Slab      | ProRox SL 930 <sup>D</sup> (RTP-W)  | Non-combustible mineral wool slab   | NEU 5       | 40 – 160<br>Load: 50 Pa    | PDS 056            | 21.05.12 | A1                                   | MW EN 14303-T4(T3 if t<60)-ST(+)<br>350-WS1-CL10 | TC6   | acoustic                      |
| 7  | Slab      | ProRox SL 950 <sup>D</sup> (RPB-9)  | Non-combustible mineral wool slab   | NEU 5       | 30 – 120<br>Load: 50 Pa    | PDS 057            | 21.05.12 | A1                                   | MW EN 14303-T4(T3 if t<60)-ST(+)<br>640-WS1-CL10 | TC7   | acoustic                      |
| 8  | Slab      | ProRox SL 970 <sup>D</sup> (RPB-12)   | Non-combustible mineral wool slab   | NEU 5       | 30 – 120<br>Load: 250 Pa   | PDS 058            | 21.05.12 | A1                                   | MW EN 14303-T4(T3 if t<60)-ST(+)<br>680-WS1-CL10 | TC8   | acoustic                      |

| No. | Product      |  |  |                  | Nominal thickness<br>in mm                                | Product data sheet |          | Reaction to fire class<br>EN 13501-1   | Designation code   | Thermal conductivity according Table 2a/b | Additional performance **) |
|-----|--------------|--|--|------------------|---|--------------------|----------|--|--|---|----------------------------|
|     | Form         | Type (old)                             | Description  | produced on      |   | Name               | Dated    |  |  |   |                            |
| 9   | Slab         | ProRox SL 980 <sup>D</sup><br>(RPB-15) | Non-combustible mineral wool slab  | NEU 5            | 30 – 120<br>Load: 250 Pa                                  | PDS 059            | 21.05.12 | A1   | MW EN 14303-T4(T3 if t<40)-ST(+)-700-WS1-CL10                    | TC9                                       | acoustic                   |
| 10  | Lamella Mat  | ProRox MA 520 ALU<br>(Duraflex)        | Non-combustible mineral wool lamella mat onto reinforced aluminium foil, compression-resistant | NEU 5<br>Offline | 30 – 130<br>Load: 250 Pa                                  | PDS 060            | 21.05.12 | A1   | MW EN 14303-T3-ST(+)-500-CS(10)10-WS1-MV2-CL10                   | TC10                                      | acoustic                   |
| 11  | Pipe Section | Rockwool 800                           | Non-combustible mineral wool circular pipe section covered with reinforced aluminium foil      | NEU 5<br>CIR 1   | 20 – 40<br>Length: 1000 mm<br>Inside diameter: 15 – 48 mm | 10.1001.3          | 06/2012  | D <sub>o</sub> ≤ 300 mm<br>A2 <sub>s</sub> -s1,d0<br><br>D <sub>o</sub> > 300 mm<br>A2-s1,d0 | MW-EN 14303-T9(T8 if D <sub>o</sub> <150)-ST(+)-250-WS1-MV2-CL10 | TC11                                      | acoustic                   |
| 12  | Lamella Mat  | Rockwool Klimarock                     | Non-combustible mineral wool lamella mat onto reinforced aluminium foil                        | NEU 5<br>Offline | 20 -100<br>Load: 250 Pa                                   | 10.1002.3          | 06/2012  | A1   | MW EN 14303-T3-ST(+)-250-WS1-MV2-CL10                            | TC12                                      | acoustic                   |

\*) S: galvanized steel mesh and stainless wire, SW: stainless steel mesh and stainless wire

\*\*) acoustic = Airflow resistivity according to EN 29053 > 5 kPa-s/m<sup>2</sup> (informative)

t = thickness in mm

D<sub>o</sub> = outer diameter







**Table 2a: Declared values of thermal conductivity  $\lambda_{N,P}$  in W/(m·K) according EN 13787  
 Guarded Hot Plate, based on test results of EN 12667 and CEN/TS 15548-1**

| Thermal Conductivity<br>$\lambda_{N,P}$<br>in W/(m·K) | Product Type (old)  | Temperature $\vartheta$ in °C |       |       |       |       |       |       |       |       |       |     | $\lambda_{N,P}^{ST(+)}$ |
|---|---|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------------------------|
|   |   | 50                            | 100   | 150   | 200   | 250   | 300   | 350   | 400   | 500   | 600   | 700 |                         |
| TC1   | ProRox WM 940 (ProRox WM 70)<br>ProRox WM 940 S (ProRox WM 70 S)<br>ProRox WM 940 SW (ProRox WM 70 SW)    | 0,040                         | 0,047 | 0,056 | 0,067 | 0,080 | 0,094 | 0,111 | 0,130 | 0,173 | -     | -   | 0,212 <sup>580</sup>    |
| TC2   | ProRox WM 950 (ProRox WM 80)<br>ProRox WM 950 S (ProRox WM 80 S)<br>ProRox WM 950 SW (ProRox WM 80 SW)    | 0,039                         | 0,045 | 0,053 | 0,062 | 0,072 | 0,084 | 0,097 | 0,112 | 0,146 | 0,192 | -   | 0,213 <sup>640</sup>    |
| TC3   | ProRox WM 960 (ProRox WM 100)<br>ProRox WM 960 S (ProRox WM 100 S)<br>ProRox WM 960 SW (ProRox WM 100 SW) | 0,039                         | 0,045 | 0,052 | 0,059 | 0,068 | 0,078 | 0,089 | 0,102 | 0,131 | 0,167 | -   | 0,191 <sup>660</sup>    |
| TC4   | ProRox WM 970 (ProRox WM 128)<br>ProRox WM 970 S (ProRox WM 128 S)<br>ProRox WM 970 SW (ProRox WM 128 SW) | 0,040                         | 0,045 | 0,051 | 0,058 | 0,066 | 0,075 | 0,085 | 0,096 | 0,123 | 0,157 | -   | 0,188 <sup>680</sup>    |
| TC5   | ProRox WM 980 (ProRox WM HT)<br>ProRox WM 980 S (ProRox WM HT S)<br>ProRox WM 980 SW (ProRox WM HT SW)    | 0,042                         | 0,047 | 0,054 | 0,062 | 0,071 | 0,081 | 0,093 | 0,106 | 0,137 | 0,174 | -   | 0,228 <sup>720</sup>    |
| TC6   | ProRox SL 930 <sup>D</sup> (RTP-W)  | 0,040                         | 0,049 | 0,059 | 0,070 | 0,085 | 0,103 | 0,122 |       |       |       |     |                         |
| TC7   | ProRox SL 950 <sup>D</sup> (RPB-9)  | 0,039                         | 0,045 | 0,053 | 0,062 | 0,073 | 0,084 | 0,097 | 0,122 | 0,144 | 0,185 |     | 0,203 <sup>640</sup>    |





| Thermal Conductivity<br>$\lambda_{N,P}$<br>in W/(m·K) | Product Type (old)                  | Temperature $\vartheta$ in °C |       |       |       |       |       |       |       |       |       |       |                         |
|---|-------------------------------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------|
|   |                                     | 50                            | 100   | 150   | 200   | 250   | 300   | 350   | 400   | 500   | 600   | 700   | $\lambda_{N,P}^{ST(+)}$ |
| TC8   | ProRox SL 970 <sup>D</sup> (RPB-12) | 0,041                         | 0,046 | 0,052 | 0,059 | 0,068 | 0,077 | 0,087 | 0,099 | 0,128 | 0,162 | -     | 0,196 <sup>680</sup>    |
| TC9   | ProRox SL 980 <sup>D</sup> (RPB-15) | 0,040                         | 0,044 | 0,049 | 0,055 | 0,062 | 0,069 | 0,077 | 0,086 | 0,106 | 0,130 | 0,158 |                         |
| TC10  | ProRox MA 520 ALU (Duraflex)        | 0,044                         | 0,053 | 0,064 | 0,077 | 0,092 | 0,110 | 0,132 | 0,156 | 0,216 |       |       |                         |
|   |                                     | 10                            | 50    | 100   | 150   | 200   | 250   |       |       |       |       |       |                         |
| TC12  | Rockwool Klimarock                  | 0,038                         | 0,047 | 0,060 | 0,075 | 0,093 | 0,114 |       |       |       |       |       |                         |





**Table 2b: Declared values of thermal conductivity  $\lambda_{N,R}$  in W/(m·K) according EN 13787  
 Pipe Tester, based on test results of EN ISO 8497**

| Thermal Conductivity<br>$\lambda_{N,R}$<br>in W/(m·K) | Product Type (old) | Mean temperature $\vartheta_m$ in °C |       |       |       |       |       |     |     |     |     |
|---|--------------------|--------------------------------------|-------|-------|-------|-------|-------|-----|-----|-----|-----|
|   |                    | 10                                   | 20    | 30    | 50    | 100   | 150   | 200 | 250 | 300 | 350 |
| TC11  | Rockwool 800       | 0,033                                | 0,034 | 0,035 | 0,037 | 0,044 | 0,052 |     |     |     |     |

All products are exonerated from classification "possible carcinogenic" by note Q of Commission Directive 97/69/EC



Gräfelfing, June 29, 2012

Head of Certification Body

Dr.-Ing. Martin Zeitler

Акционерное  
общество  
«Завод ЛИТ»



152020, Ярославская обл., г. Переславль-Залесский,  
ул. Советская, 1, тел: (48535) 3-08-71, факс: (48535) 3-22-66

ПАСПОРТ № 525

на материал изолирующий покровный  
ТИТАНФЛЕКС

Марка Ф-300  
Партия № 525  
Ширина материала 600 мм  
Длина рулона 25 м  
Количество рулонов 14 шт.  
Количество материала 210 м<sup>2</sup>  
Дата изготовления 11 мая 2022 г.

Материал сертифицирован.

Сертификат соответствия № РОСС RU.НВ61.Н30434 от 11.11.2021г.

Результаты испытаний

| № п/п | Наименование показателя   | Норма по СТО  | Результаты испытаний |
|-------|---|---|----------------------|
| 1     | Толщина, мкм  | (250 — 800) ± 10 %  | 332                  |
| 2     | Прочность сцепления дублированных слоев, Н/м, не менее:<br>— для каждого слоя | 100<br>или прочность сцепления<br>должна превышать проч-<br>ность исходных материалов | превыш.<br>нр-16     |
| 3     | Адгезия к нержавеющей пластине (для типа С) под углом 180°, г/см, не менее    | 600   | —                    |
| 4     | Внешний вид   | Материал не должен иметь разрывов, сквозных отверстий                                 | Сотв                 |

Заключение ОТК:

Материал изолирующий покровный ТИТАНФЛЕКС соответствует требованиям  
СТО 04696843-001-2015



*(Handwritten signature)*

Н.Л. Веселова

Р.С. Кузнецов



# ROCKWOOL Larock 40 ALS/ KLIMAMAT 40

## Izolații termice și fonice pentru echipamente de distribuție a căldurii și sisteme de ventilație

### DESCRIEREA PRODUSULUI

Saltele lamelare din vată bazaltică Larock 40 ALS/KLIMAMAT 40 cașerate pe o parte cu folie de aluminiu armată cu plasă din fibră de sticlă, impermeabile pe toată secțiunea. Fixarea produsului se efectuează prin sudarea punctuală a cuielor speciale sau folosind adeziv poliuretanic.

### DOMENIU DE APLICARE

Larock 40 ALS/KLIMAMAT 40 este materialul perfect pentru termoizolarea canalelor de ventilație și aerisire, rezervoarelor de apă caldă, conductelor instalațiilor tehnice. Aranjamentul perpendicular pe suprafața fibrelor și densitatea nominală mai mică conduce la calități superioare de rezistență asigurând în același timp flexibilitatea necesară la montare chiar și la colțurile canalelor de ventilație. Temperatura maximă admisă pe partea foliei de aluminiu este de 100 °C. Îmbinarea se face cu bandă de aluminiu autoadezivă, folia de aluminiu constituind un strat hidroizolant.



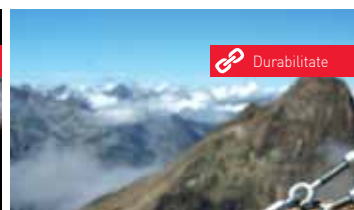
# ROCKWOOL Larock 40 ALS/ KLIMAMAT 40

## PROPRIETĂȚILE VATEI BAZALTICE ROCKWOOL

Termoizolator excelent. Incombustibil, la temperaturi ridicate nu degajează fum și nu curge, împiedică extinderea focului. Are capacități superioare de termo și fonoizolare. Impermeabil pe toată secțiunea, picăturile de apă se scurg de pe suprafață dar în același timp permeabil la vapori, capacitate aproape similară cu această capacitate a aerului.



Stabilitate dimensională. Nu dăunează sănătății: capacitate mare de dizolvare biologică, fabricat din materii prime de vată bazaltică de calitate RAL.



## AMBALARE

Saltele lamelare Larock 40 ALS/ KLIMAMAT 40 din vată minerală sunt ambalate, rulate și comprimate în polietilenă termocontractabilă purtând marca producătorului. Datele de bază și proprietățile produsului se pot citi pe eticheta atașată.

## DIMENSIUNI, GAMĂ DE PRODUSE ȘI AMBALARE

|                       |      |     |     |     |     |     |      |
|-----------------------|------|-----|-----|-----|-----|-----|------|
| Grosime (mm)          | 20   | 30  | 40  | 50  | 60  | 80  | 100  |
| Lățime (mm)           | 1000 |     |     |     |     |     |      |
| m <sup>2</sup> / rolă | 12,0 | 8,0 | 6,0 | 5,0 | 4,0 | 3,0 | 2,50 |

## PARAMETRI TEHNICI

| Proprietate   | Simbol  | Valoare                      | U.M.                                | Standard           |                                    |          |
|---|---|------------------------------|-------------------------------------|--------------------|------------------------------------|----------|
| Clasa de combustibilitate                               | ...   | A1                           | -                                   | EN 13501-1         |                                    |          |
| Raportul între coeficientul de conductibilitate termică | $t_m$   | 10                           | 100                                 | 250                | °C                                 |          |
| $\lambda_m$ și temperatură $t_m$                        | $\lambda_m$   | 0.040                        | 0.061                               | 0.126              | W.m <sup>-1</sup> .K <sup>-1</sup> | EN 14303 |
| Densitate nominală                                      | Pa  | 40                           |                                     | kg.m <sup>-3</sup> | EN 1602                            |          |
| Temperatura maximă admisă                               | ...   | max. 250*                    | °C                                  | ...                |                                    |          |
| Căldură specifică                                       | $c_p$   | 1030                         | J.kg <sup>-1</sup> .K <sup>-1</sup> | EN 12524           |                                    |          |
| Punct de topire   | $t_t$   | > 1.000                      | °C                                  | DIN 4102           |                                    |          |
| Certificare tehnică                                     |   | EMI: 1415-CPD-46-[C-41/2012] |                                     |                    |                                    |          |
| Sistemul de management al calității                     | ISO 9001:2015 - Certificat Nr. 10362187- 0052076 Lloyd's Register EMEA Mft. |                              |                                     |                    |                                    |          |
| Sistemul de management al mediului                      | ISO 14001:2015 - Certificat Nr. 10362187-0052075 Lloyd's Register EMEA Mft. |                              |                                     |                    |                                    |          |

\* Temperatură maximă admisă pe partea cașerată cu folie - max. 100 °C.

Informațiile tehnice prezentate mai sus descriu proprietățile produsului valabile în momentul publicării fișei tehnice. Datorită dezvoltării continue a tehnologiei și experienței producătorului, proprietățile tehnice ale produsului pot suferi modificări.  
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Rockwool România SRL

www.rockwool.com/ro

Sos. Bucuresti-Ploiesti 1A, Sector 1  
013681 București, România tel: +  
40 212 334 440

info@rockwool.ro





[Termoizolarea apartamentelor si caselor private](#)
[Izolare la mansardă](#)
[Izolare pereților de carcasă](#)  
[Izolare pereților acoperite cu siding](#)
[Izolare planșeelor dintre nivele](#)
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[Pardoseală și tavan](#)
[Pereții](#)

## ROCKMIN

Plăci semi-rigide de vată bazaltică, hidrofobizate în masă, pentru pereți despărțitori, tavane și acoperișuri înclinate. ROCKMIN se folosește pentru izolarea termică și fonică a pereților despărțitori, mansardelor și acoperișurilor înclinate, unde poate fi montat între și sub căpriori.

[Compară](#)
[Compară](#)

## Informații tehnice

|  |   |
|--|---|
| Clasa de reacție la foc  | Nu este inflamabil                          |
| Standard de produs   | EN 13162:2012+A1:2015                       |
| Certificat CE  | 1390-CPR-0363/13/P; 1390-CPR-0364/13/P      |
| Densitate  | 26  |
| Coefficient de conductivitate termică în condițiile de funcționare | $\lambda_B=0,0395 \text{ W/m}\cdot\text{K}$ |
| Termenul de funcționare efectivă, ani condiționați                 | 50  |

## Dimensiuni și ambalare

| SAP numărul | Produs              | Unitate | Fabrică | Grup de livrare A,B,C | Unitate de expediere | m2/unitatea | m2/pachet | Greutate, kg unități | Numărul de bucăți dintr-un palet |
|-------------|---------------------|---------|---------|-----------------------|----------------------|-------------|-----------|----------------------|----------------------------------|
| 103615      | ROCKMIN 50 1000*600 | m2      | MAL     | A                     | PAL                  | 378         | 10,8      | 491,4                | 4158                             |



**Centrum stavebního inženýrství a.s. Praha**  
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Notified Body, Certification Body  
Pražská 16, 102 00 Praha 10



**Notified Body 1390**

## **CERTIFICATE OF CONSTANCY OF PERFORMANCE**

**1390 – CPR – 0102/08/P**

In compliance with the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product

***Factory made mineral wool products ROCKWOOL used for thermal insulation of buildings, sold under the trade marks***

***(trade marks and type codes according to EN 13 162 are given in the annex to the certificate)***

**placed on the market by :** **ROCKWOOL Polska, Sp. z o.o.**  
**ul. Kwiatowa 14**  
**66-131 Cigacice, Poland**

**and produced in the :** **Zakład w Małkini**  
**manufacturing plant** **ul. Jana III. Sobieskiego**  
**07- 320 Małkinia (production line MAL 5,6,7)**

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard

**EN 13 162:2012+A1:2015**

under system 1 for the performances set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the **constancy of performance of the construction product.**

This certificate was first issued on 31. 10. 2008 as a certificate pursuant to CPD and will remain valid as long as neither the harmonised standard, the construction product, the AVPC methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

**Notified Body 1390**  
**Prague, 31. 03. 2017**



  
**Ing. Petr Kučera, CSc.**  
**Deputy of Notified Body 1390**





**Annex to the Certificate of Constancy of Performance 1390-CPR-0102/08/P**  
**The certificate covers the following products of ROCKWOOL Polska, Malkinia factory:**

| Trade mark                          | Thermal conductivity W/mK | Reaction to fire | Type code according to EN 13 162                              | Line                 |
|-------------------------------------|---------------------------|------------------|---|----------------------|
| DOMROCK (d=100-200)                 | 0.045                     | A1               | MW-EN 13162-T1-WS-WL(P)-MU1                                   | MAL7                 |
| ROCK-ROLL (d=100-200)               |                           |                  |   |                      |
| MATA W (d=100-200)                  |                           |                  |   |                      |
| MEGAROCK (d=100-200)                | 0.039                     | A1               | MW-EN 13162-T2-WS-WL(P)-MU1                                   | MAL7                 |
| ROCKMIN (d=40-200)                  |                           |                  |   | MAL5<br>MAL6<br>MAL7 |
| MULTIROCK (d=40-200)                |                           |                  |   |                      |
| ROCKBATTS (d=40-200)                |                           |                  |   |                      |
| STALROCK (d=40-200)                 |                           |                  |   |                      |
| PLYTA z WELNY MINERALNEJ (d=40-200) |                           |                  |   |                      |
| ROCKBATTS SUPER (d=40-220)          |                           |                  |   |                      |
| TOPROCK (d=80-200)                  | 0.034                     | A1               | MW-EN 13162-T2-WS-MU1   | MAL5<br>MAL7         |
| PANELROCK (d=30-200)                | 0.035                     | A1               | MW-EN 13162-T2-WS-MU1   | MAL7                 |
| INDUSTRIAL 50 (d=20-200)            | 0.036                     | A1               | MW-EN 13162-T3-CS(10)0.5-WS- MU1                              | MAL5<br>MAL6<br>MAL7 |
| INDUSTRIAL 60 (d=20-200)            |                           |                  |   |                      |
| PANELROCK 80 (d=40-200)             |                           |                  |   |                      |
| INDUSTRIAL 80 (d=20-200)            | 0.036                     | A1               | MW-EN 13162-T3-CS(10)0.5-WS- MU1                              | MAL5<br>MAL6<br>MAL7 |
| VENTI MAX (d=30-79)                 |                           |                  |   | MAL7                 |
| VENTI MAX (d=80-200)                |                           |                  |   |                      |
| WENTIROCK MAX (d=80-200)            |                           |                  |   |                      |
| WENTIROCK (d=20-79)                 | 0.034                     | A1               | MW-EN 13162-T4-CS(10)0.5-WS-WL(P)-MU1                         | MAL7                 |
| WENTIROCK (d=80-200)                | 0.034                     | A1               | MW-EN 13162-T4-CS(10)0.5-AW1,00-WS-WL(P)-MU1                  | MAL7                 |
| FASROCK MAX (d=80-100)              | 0.037                     | A1               | MW-EN 13162-T4-CS(10)10-TR7.5-WS- MU1                         | MAL5<br>MAL6<br>MAL7 |
| FASROCK MAX (d=110-200)             | 0.037                     | A1               | MW-EN 13162-T4-CS(10)10-TR7.5-WS-AW 0.95- MU1                 |                      |
| FASROCK XL (d=80-200)               | 0.039                     | A1               | MW-EN 13162-T4-DS(70,90)-CS(10)10-TR7.5-WS- MU1               | MAL6<br>MAL7         |
| CB ROCK (d=40-200)                  | 0.037                     | A1               | MW-EN 13162-T5-DS(70,90)-CS(10)40-TR100-WS- MU1               | MAL5<br>MAL6<br>MAL7 |
| SANDWICH BATTS CB (d=80-200)        | 0.038                     | A1               | MW-EN 13162-T4-DS(70,90)-TR7,5-PL(5)100-WS-MU1                |                      |
| BLOCZEK PW LAMELLA (d=40-200)       | 0.042                     | A2               | MW-EN 13162-T4-DS(70,90)-TR7,5-PL(5)100-WS-MU1                |                      |
| MONROCK MAX (d=40-79)               | 0.045                     | A1               | MW-EN 13162-T4-CS(10)70-TR120-WS-MU1-SS50                     |                      |
|                                     | 0.045                     | A1               | MW-EN 13162-T5-CS(10)70-TR120-WS-MU1-SS50                     |                      |
|                                     | 0.040                     | A1               | MW-EN 13162-T4-DS(70,90)-CS(10)40-TR7.5-PL(5)350-WS-WL(P)-MU1 |                      |



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| Trade mark                                  | Thermal conductivity W/mK | Reaction to fire | Type code according to EN 13 162  | Line                 |
|---|---------------------------|------------------|---|----------------------|
| MONROCK MAX<br>(d=80-200)                   | 0.039                     | A1               | MW-EN 13162-T4-DS(70,90)-CS(10)40-TR7.5-PL(5)400-WS-WL(P)-MU1   | MAL6<br>MAL7         |
| ROOFROCK 50<br>(d=40-50)                    | 0,038                     | A1               | MW-EN 13162-T4-DS(70,-)-DS(70,90)-CS(10)50-TR10-PL(5)600-WS-WL(P)-MU1   | MAL7                 |
| DACHROCK MAX<br>(d=40-79)                   | 0.041                     | A1               | MW-EN 13162-T4-DS(70,-)-DS(70,90)-CS(10)50-TR15-PL(5)400-WS-WL(P)-MU1   | MAL5<br>MAL6<br>MAL7 |
| DACHROCK MAX<br>(d=80-200)                  | 0.040                     | A1               | MW-EN 13162-T4-DS(70,-)-DS(70,90)-CS(10)50-TR15-PL(5)500-WS-WL(P)-MU1   | MAL6<br>MAL7         |
| DACHROCK MAX HARD<br>(d=40-79)              | 0.042                     | A1               | MW-EN 13162-T4-DS(70,-)-DS(70,90)-CS(10)70-TR15-PL(5)400-WS-WL(P)-MU1   | MAL5<br>MAL6<br>MAL7 |
| DACHROCK MAX HARD<br>(d=80-200)             | 0.042                     | A1               | MW-EN 13162-T4-DS(70,-)-DS(70,90)-CS(10)70-TR15-PL(5)500-WS-WL(P)-MU1   | MAL6<br>MAL7         |
| HARDROCK MAX<br>HARDROCK II<br>(d=50-200)   | 0,040                     | A1               | MW-EN 13162-T4-DS(70,-)-DS(70,90)-CS(10)70 <sup>*)</sup> -TR10-PL(5)800-WS-WL(P)-MU1<br><i>*)for top layer CS(10)90</i> | MAL7                 |
| SPODROCK<br>SPODROCK WG<br>(d=20-180)       | 0.039                     | A1               | MW-EN 13162-T4-DS(70,90)-CS(10)30-TR7.5-PL(5)300-WS-WL(P)-MU1   | MAL5<br>MAL6<br>MAL7 |
| INDUSTRIAL 120<br>(d=20-180)                | 0,039                     | A1               | MW-EN 13162-T4-WS-MU1   | MAL5<br>MAL6<br>MAL7 |
| STROPROCK (d=20-200)                        | 0.041                     | A1               | MW-EN 13162-T6-CS(10)50-PL(5)400-WS-CP4-MU1   | MAL5<br>MAL6<br>MAL7 |
| FLOOR BATTS (d=20-200)                      |                           |                  |   |                      |
| ROCKLIT (d=20-200)                          | 0.042                     | A1               | MW-EN 13162-T4-TR7,5-WS-MU1   | MAL5<br>MAL6<br>MAL7 |
| DACHROCK(d=20-200)                          | 0.041                     | A1               | MW-EN 13162-T4-DS(70,90)-CS(10)70-TR15-PL(5)450-WS-WL(P)-MU1  | MAL6<br>MAL7         |
| ROOFROCK 80 (d=20-30)<br>WINDROCK (d=20-30) | 0.038                     | A1               | MW-EN 13162-T4-DS(70,-)-DS(70,90)-CS(10)80-TR10-PL(5)700-WS-WL(P)-MU1   | MAL7                 |
| LAMROCK (d=40-200)<br>LAMROCK MAX(d=40-200) | 0.045                     | A1               | MW-EN 13162-T5-DS(70,90)-CS(10)80-TR150-WS-WL(P)-SS70-MU1   | MAL7                 |
| INDUSTRIAL T 100<br>(d=15-250)              | 0,038                     | A1               | MW-EN 13162-T4-CS(10)0,5-WS-MU1   | MAL5<br>MAL6<br>MAL7 |
| INDUSTRIAL T 120<br>(d=15-250)              | 0,038                     | A1               | MW-EN 13162-T4-CS(10)0,5-WS-MU1   |                      |
| INDUSTRIAL D 110<br>(d=15-200)              | 0.038                     | A1               | MW-EN 13162-T4-WS-MU1   | MAL5<br>MAL6<br>MAL7 |
| INDUSTRIAL D 190<br>(d=15-200)              | 0.045                     | A1               | MW-EN 13162-T4-WS-MU1   | MAL6<br>MAL7         |
| BETAROCK 80<br>(d=15-200)                   | 0.038                     | A1               | MW-EN 13162-T4 -WS-MU1  | MAL5<br>MAL6<br>MAL7 |
| BETAROCK 110<br>(d=15-200)                  | 0.038                     | A1               | MW-EN 13162-T4-WS-MU1   |                      |
| BETAROCK 150<br>(d=15-200)                  | 0.040                     | A1               | MW-EN 13162-T4-WS-MU1   |                      |



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|--------------------------------|---------------------------|------------------|----------------------------------|--------------|
| BETAROCK 180<br>(d=15-200)     | 0,045                     | A1               | MW-EN 13162-T4-WS-MU1            | MAL6         |
| MARC 180<br>(d=15-150)         | 0,045                     | A1               | MW-EN 13162-T4-WS-MU1            | MAL7         |
| FIRE DOORS D 110<br>(d=15-150) | 0,038                     | A1               | MW-EN 13162-T4 -WS-MU1           | MAL5         |
| FIRE DOORS D 150<br>(d=15-150) | 0,040                     | A1               | MW-EN 13162-T4 -WS-MU1           | MAL6<br>MAL7 |
| FIRE DOORS D 190<br>(d=15-150) | 0,045                     | A1               | MW-EN 13162-T4-WS-MU1            | MAL6<br>MAL7 |
| LAMROCK S (d=40-200)           | 0,044                     | A1               | MW-EN 13162-T5-TR80              | MAL7         |
| LAMROCK M (d=40-200)           | 0,045                     | A1               | MW-EN 13162-T5-TR100             | MAL7         |
| LAMROCK XS (d=40-200)          | 0,041                     | A1               | MW-EN 13162-T5-TR80              | MAL7         |
| SPANROCK L (d=40-240)          | 0,040                     | A1               | MW-EN 13162-T5-TR5               | MAL7         |
| SPANROCK M (d=40-240)          | 0,038                     | A1               | MW-EN 13162-T5-TR5               | MAL7         |
| SPANROCK M-M<br>(d=40-240)     | 0,038                     | A1               | MW-EN 13162-T5-TR5               | MAL7         |
| SPANROCK S (d=40-240)          | 0,038                     | A1               | MW-EN 13162-T5-TR5               | MAL7         |
| SPANROCK XL<br>(d=40-240)      | 0,040                     | A1               | MW-EN 13162-T5-TR5               | MAL7         |
| SPANROCK XS<br>(d=40-240)      | 0,041                     | A1               | MW-EN 13162-T5-TR5               | MAL7         |



Notified Body 1390  
Prague, 31. 03. 2017

  
Ing. Petr Kučera, CSc.  
Deputy of Notified Body 1390

Акционерное  
общество  
«Завод ЛИТ»



152020, Ярославская обл., г. Переславль-Залесский,  
ул. Советская, 1, тел: (48535) 3-08-71, факс: (48535) 3-22-66

ПАСПОРТ № 227  
на АРМОФОЛ

Марка -  
Партия № 227  
Размер рулона 1000 мм 50 м  
Количество рулонов 12 шт  
Количество материала 600 м<sup>2</sup>  
Дата изготовления 02 июля 2022.

Материал сертифицирован.  
Сертификат соответствия № РОСС RU.AM05.H00525 от 30.04.2019г.

Результаты испытаний

| № п/п | Наименование показателей  | Норма по ТУ  | Результаты испытаний |
|-------|---|--|----------------------|
| 1.    | Внешний вид   | Не допускаются разрывы, сквозные отверстия                       | Совмб                |
| 2.    | Ширина рулона, мм   | (св. 300 до 600 вкл.) ± 3<br>(св. 600 до 1230 вкл.) ± 10         | 999                  |
| 3.    | Прочность сцепления алюминиевой фольги с основой, Н/м, не менее | 100<br>или прочность сцепления должна превышать прочность фольги | Совмб                |
| 4.    | Адгезия к нержавеющей стальной пластине, Н/м, не менее          | 600  | —                    |

Заключение ОТК:

Армофол ТК по качеству и упаковке соответствует ТУ 1811-081-

04696843-2005



Н.Л. Веселова

