

# THERMANO

## DECLARATION OF PERFORMANCE

NO. 32/10/13165/THERMANO

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## 1 Unique product type identification code

THERMANO thermal insulation boards with a polyisocyanurate (PIR) foam core in multi-layered, gas-tight cladding made of aluminium laminate

Information identifying the product batch - listed on the label of each product packaging, serial number printed on every board

Product thickness: 40, 50, 60, 80, 100, 113, 120, 125, 140, 150 [mm]

Thermal insulation: PIR,

## 2 Intended applications, in accordance with the harmonised technical specification

THERMANO thermal insulation boards with a polyisocyanurate (PIR) foam core in multi-layered, gas-tight cladding made of aluminium laminate as wall, roof or floor insulation

## 3 Manufacturer

**BALEX METAL Sp. z o.o.**  
ul. Wejherowska 12 C, 84-239 Bolszewo

Manufacturing plant:

ul. Spalska 145/155,  
97-200 Tomaszów Mazowiecki

## 4 Authorised representative

Not Established

## 5 System for assessment and verification of functional properties stability

System 3

## 6 Harmonised standard

13165+A2:2016-08 Thermal insulation products for construction. Rigid polyurethane foam (PUR) products manufactured in-plant. Specification  
Notified units:  
Building Research Institute (no. 1488)

## 7 Declared performance

Primary characteristics	Functional properties		Harmonised technical specification
<b>Reaction to fire</b>	Fire protection class	<b>E</b>	EN:13165+A2:2016-08
<b>Water permeability</b>	Water absorption	<b>WL(T)2</b>	EN:13165+A2:2016-08
	Flatness after wetting one of the surfaces	<b>FW2</b>	EN:13165+A2:2016-08
<b>Release of hazardous substances to the internal environment</b>	No harmonised test methods		EN:13165+A2:2016-08
<b>Sound absorption coefficient</b>	Sound absorption	<b>NPD</b>	EN:13165+A2:2016-08
<b>Insulation coefficient for airborne sounds carried directly</b>	Sound absorption	<b>NPD</b>	EN:13165+A2:2016-08
<b>Continuous incandescent combustion</b>	No harmonised test methods		EN:13165+A2:2016-08
<b>Thermal resistance</b>	Thermal resistance accounting for aging $R_D$ [m <sup>2</sup> K/W]	40( <b>1,75</b> ) 50( <b>2,20</b> ) 60( <b>2,60</b> ) 80( <b>3,50</b> ) 100( <b>4,35</b> ) 113( <b>4,95</b> ) 120( <b>5,25</b> ) 125( <b>5,45</b> ) 140( <b>6,15</b> ) 150( <b>6,55</b> )	EN:13165+A2:2016-08
	Thermal conductivity coefficient accounting for aging $\lambda_D$ [W/mK]	<b>0.023</b>	EN:13165+A2:2016-08
	Thickness	<b>T1</b>	EN:13165+A2:2016-08
<b>Steam permeability</b>	Steam permeation	<b>NPD</b>	EN:13165+A2:2016-08
<b>Compressive strength</b>	<b>CS(10/Y)200</b>		EN:13165+A2:2016-08
<b>Tensile/bending Strength</b>	Tensile strength	<b>TR70</b>	EN:13165+A2:2016-08

<b>Stability of reaction to fire as a function of heat, atmospheric conditions, aging/degradation</b>	Reaction to fire does not change in time		EN:13165+A2:2016-08
<b>Stability of heat resistance as a function of heat, atmospheric conditions, aging/degradation</b>	Thermal resistance accounting for aging $R_D$ [ $m^2K/W$ ]	40(1,75) 50(2,20) 60(2,60) 80(3,50) 100(4,35) 113(4,95) 120(5,25) 125(5,45) 140(6,15) 150(6,55)	EN:13165+A2:2016-08
	Thermal conductivity coefficient accounting for aging $\lambda_D$ [ $W/mK$ ]	<b>0.023</b>	EN:13165+A2:2016-08
	Stability of heat resistance as a function of aging/degradation	<b>NPD</b>	EN:13165+A2:2016-08
	Dimensional stability under specific temperature and humidity conditions	<b>DS(70,90)2</b> <b>DS(-20,-)2</b>	EN:13165+A2:2016-08
	Deformation under specific conditions of compressive load and temperature	<b>NPD</b>	EN:13165+A2:2016-08
	Annex C Methods of determining heat resistance and heat conductivity coefficient accounting for aging	<b>C. 5</b>	EN:13165+A2:2016-08
	<b>Stability of compressive strength as a function of aging and degradation</b>	Creeping under compression	<b>NPD</b>

Performance characteristics of the above product comply with the set of declared performance characteristics. This declaration of performance characteristics is issued in accordance to the Regulation (EU) no. 305/2011 at the sole responsibility of the manufacturer BALEXMETAL Sp. z o.o.

Bolszewo, 21st November 2018

Elzbieta Mehring  
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P-191112216 (09/1)



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ul. Wejherowska 12 C, 84-239 Bolszewo

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PN-EN 13165+A2:2016-08

**THERMANO thermal insulation boards with  
a polyisocyanurate (PIR) foam core in  
multi-layered, gas-tight cladding made of  
aluminium laminate  
wall, roof and floor insulation**

**Reaction to fire: E**

**Thermal resistance  $R_D$  accounting for aging**

40(1,75) 50(2,20) 60(2,60) 80(3,50) 100(4,35) 113(4,95) 120(5,25)  
125(5,45) 140(6,15) 150(6,55)  $m^2K/W$

**Thermal conductivity coefficient accounting for aging**

$\lambda_D$  0,023  $W/mK$

**Thicknesses:** 40,50,60,80,100,113,120,125,140,150 mm

**PIR-EN 13165 - T1 - DS(70.90)2 - DS(-20,-)2 - CS(10/Y)200 - TR70 -  
FW2 - WL(T)2**