CE

BALEXMETAL
BUDUJEMY RAZEM
WE BUILD TOGETHER

# DECLARATION OF PERFORMANCE

## No. MW-W-PLUS/2020/1



1. **Unique identification code of the product-type:** Wall panel MW PLUS (MW-W-PLUS)
2. **Intended use/es:** Self-supporting sandwich panels with mineral wool core as external walls, wall claddings, partition walls and ceilings
3. **Manufacturer: BALEX METAL sp. z o.o.,** ul. Wejherowska 12C, 84-239 Bolszewo
4. **System for assessment and verification of functional properties stability:** 3
5. **Harmonised standard:** PN-EN 14509:2013
6. **Notified body/ies:** Instytut Techniki Budowlanej (No. 1488), FIRES, s.r.o (No. 1396)
7. **Declared performance/s:** Table 1

**Tab. 1**: Essential characteristics

| Essential characteristics | | | | | Performance | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Steel grade | | | | | S250 - 280GD, 1.4301 | | | | | | |
| Type of coating | | | | | SP, HDP, PVDF, PVC(P), PVC(F), PUR | | | | | | |
| Cladding thickness | | External [mm] | | | 0,5; 0,6; 0,7 | | | | | | |
| | | Internal [mm] | | | 0,5; 0,6; 0,7 | | | | | | |
| Cladding profile type | | External | | | M (Micro-profile), L (Lined), R (Grooved), G (Plain), C (Clearline) | | | | | | |
| | | Internal | | | L (Lined), G (Plain), C (Clearline) | | | | | | |
| Core material | | | | | Mineral wool | | | | | | |
| Nominal core density [kg/m$^3$] | | | | | 110 | | | | | | |
| Nominal thickness $d_N$ [mm] | | | | | 80 | 100 | 120 | 150 | 160 | 180 | 200 |
| Panel weight [kg/m$^2$] | | | | | 17.7 | 19.8 | 21.9 | 25.01 | 26.1 | 28.2 | 30.3 |
| Mechanical resistance | Compressive strength $f_{cc}$ [MPa] | | | | 0,100 | 0,100 | 0,100 | 0,100 | 0,100 | 0,100 | 0,092 |
| | Tensile strength $f_{ct}$ [MPa] | | | | 0,100 | 0,100 | 0,100 | 0,100 | 0,100 | 0,100 | 0,100 |
| | Shear strength $f_{cv}$ [MPa] | | | | 0,062 | 0,062 | 0,062 | 0,062 | 0,062 | 0,062 | 0,062 |
| | Shear modulus $G_c$[MPa] | | | | 3,2 | 3,2 | 3,5 | 3,5 | 3,5 | 3,5 | 3,5 |
| | Wrinkling strength | In span | External cladding [MPa] | M | 146 | 142 | 139 | 134 | 129 | 120 | 112 |
| | | | | L | 122 | 124 | 127 | 130 | 130 | 130 | 130 |
| | | | | G, R, C | 106 | 103 | 101 | 96 | 96 | 95 | 95 |
| | | | External cladding at increased temperature [MPa] | M | 146 | 142 | 139 | 134 | 129 | 120 | 112 |
| | | | | L | 122 | 124 | 127 | 130 | 130 | 130 | 130 |
| | | | | G, R, C | 106 | 103 | 101 | 96 | 96 | 95 | 95 |
| | | | Internal cladding [MPa] | L | 159 | 150 | 141 | 128 | 125 | 118 | 112 |
| | | | | G, C | 119 | 115 | 111 | 106 | 105 | 103 | 102 |
| | | At a support | External cladding [MPa] | M | 144 | 136 | 128 | 116 | 113 | 108 | 103 |
| | | | | L | 100 | 104 | 108 | 114 | 112 | 107 | 103 |
| | | | | G, R, C | 105 | 100 | 96 | 89 | 88 | 86 | 84 |
| | | | External cladding at increased temperature [MPa] | M | 144 | 136 | 128 | 116 | 113 | 108 | 103 |
| | | | | L | 100 | 104 | 108 | 114 | 112 | 107 | 103 |
| | | | | G, R, C | 105 | 100 | 96 | 89 | 88 | 86 | 84 |
| | | | Internal cladding [MPa] | L | 131 | 128 | 124 | 120 | 117 | 113 | 108 |
| | | | | G, C | 116 | 110 | 103 | 94 | 95 | 98 | 101 |
| | | Reduction factor | Cladding thickness | 0,6mm | 0,88 (Micro-profile); 0,89 (Lined); 1 (Grooved, Plain, Clearline) | | | | | | |
| | | | | 0,7mm | 0,80 (Micro-profile); 0,80 (Lined); 1 (Grooved, Plain, Clearline) | | | | | | |

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**Tab. 1**: Essential characteristics

| Nominal thickness $d_N$ [mm] | | 80 | 100 | 120 | 150 | 160 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|
| Thermal transmittance | Thermal transmittance $U_{d,s}$ [W/ m²K] | 0,48 | 0,38 | 0,32 | 0,26 | 0,24 | 0,22 | 0,20 |
| | Thermal conductivity $\lambda_D$ [W/mK] | 0,040 | | | | | | |
| Reaction to fire | Reaction to fire classification | A2-s2,d0 | | | | | | |
| Fire resistance | Fire resistance classification of walls | | EI 30 | EI 60 | | | | |
| Water permeability | Resistance classification | A | | | | | | |
| Air permeability | The amount of permeating air [m³/(m²h)] | 0 (Impermeable) | | | | | | |
| Water vapour permeability | Water vapour transmission coefficient $\mu$ | ∞ (Impermeable) | | | | | | |
| Airborne sound insulation | Single number ratings $R_w$, $R_{A1}$, $R_{A2}$ [dB] | $R_W \geq 32$, $R_{A1} \geq 29$, $R_{A2} \geq 28$ | | | | | | |
| Sound absorption | Sound absorption coefficient $\alpha_w$ | NPD | | | | | | |
| Durability | Durability criteria DUR2 | Pass | | | | | | |
| Dangerous substances | Release of dangerous substances | NPD | | | | | | |

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed in the name of the manufacturer by:
Certification manager

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Wawrzynowicz

Bolszewo, 27 October 2020

dr inż. Adam Wawrzynowicz