

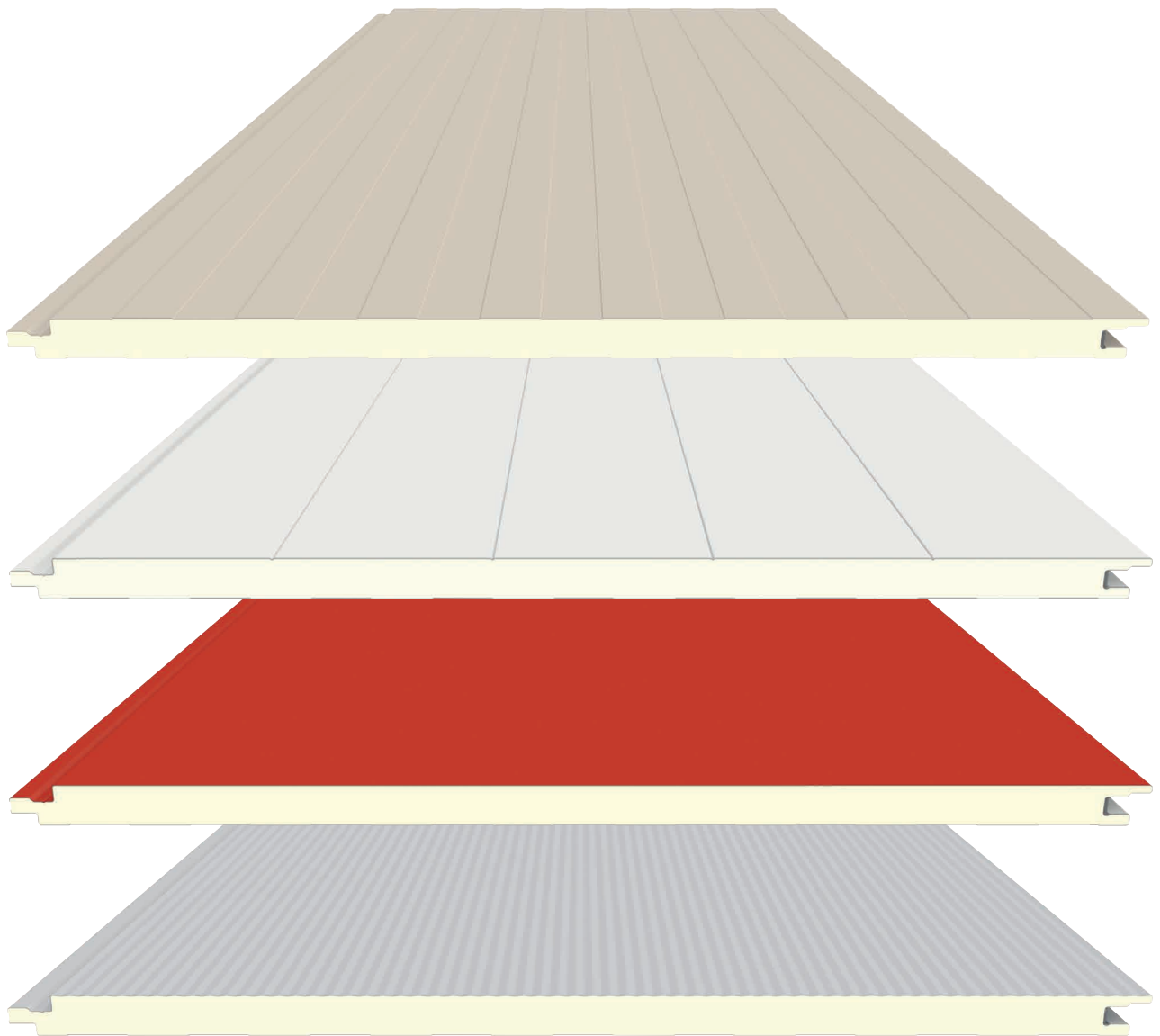


MASTER-F

# Master-F wall panels

**MASTER-F** panels are structural wall Insulated Metal Panels composed of steel skins laminated to a minimum of 1.96-inch polyisocyanurate foam core (min 2.3 pcf density)..

**MASTER-F** panels have a tongue and groove joining system designed to hide and protect the fixings, which gives an excellent aesthetic appearance. They can be installed in both vertical and horizontal positions.

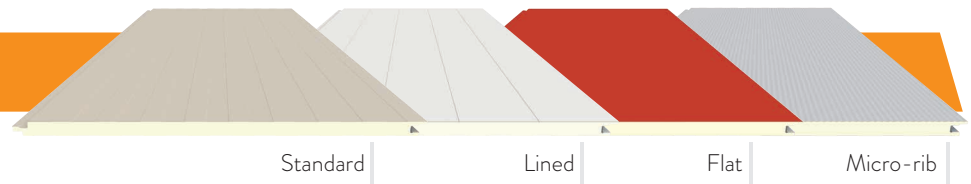


They come in four different exterior finishes (standard, lined, flat, micro-rib) and two different inner ribbings (standard and flat), as well as a wide range of available colors.

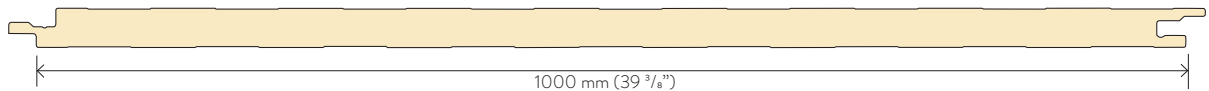


## Master-F wall panels

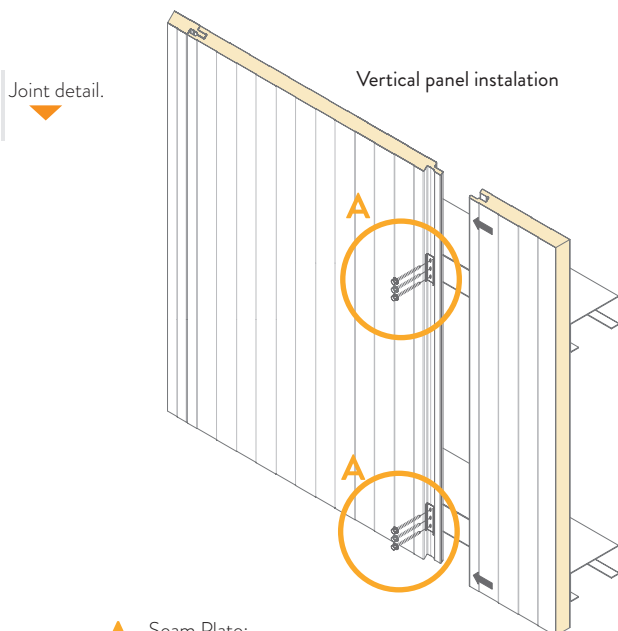
### TECHNICAL SPECIFICATIONS



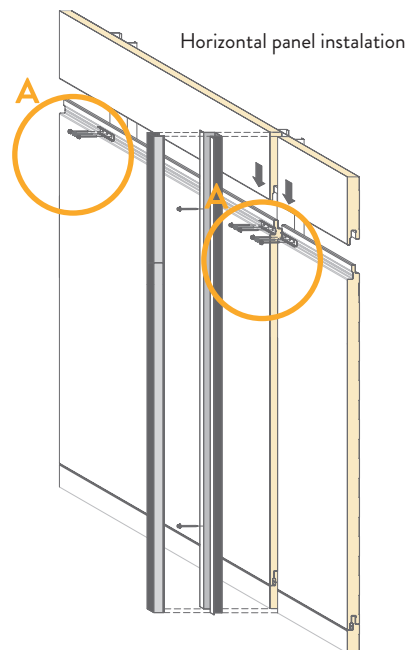
|                                       | Values                                                                                                                                                            |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Panel thickness                       | 50, 60, 80, 100 mm.<br>1 <sup>31</sup> / <sub>32</sub> , 2 <sup>3</sup> / <sub>8</sub> , 3 <sup>5</sup> / <sub>32</sub> , 3 <sup>15</sup> / <sub>16</sub> , inch. |
| Cover Width                           | 1000 mm. (39 <sup>3</sup> / <sub>8</sub> " )                                                                                                                      |
| Length                                | Up to 11.900 mm. (39 ft.)                                                                                                                                         |
| Field of application                  | Wall panels                                                                                                                                                       |
| Outer face thickness                  | mm 0.5 / 0.6 / 0.7                                                                                                                                                |
| Inner face thickness                  | GAUGE 26 / 24 / 22                                                                                                                                                |
| Exterior face                         | G90 galvanized or AZ50 aluminium-zinc, coated steel in 26 GA and above                                                                                            |
| Interior face:                        | G90 galvanized or AZ50 aluminium-zinc, coated steel in 26 GA and above                                                                                            |
| Coatings<br>(see section on Finishes) | Polyester 25 um (1 mil)                                                                                                                                           |
|                                       | PVDF 25um / 35um (1 mil / 1.38 mils)                                                                                                                              |
|                                       | PU 55um (Granite® HDX/SDP 50) (2.16 mils)                                                                                                                         |
|                                       | PVC 120um (4.8mil) (foodsaf e)                                                                                                                                    |
| Outer ribbing                         | Standard / Lined / Flat / Micro-rib                                                                                                                               |
| Inner ribbing                         | Standard / Flat                                                                                                                                                   |
| Core type                             | Polyisocyanurate (PIR)                                                                                                                                            |
| Core Density                          | 40 kg/m <sup>3</sup> (+/- 10%) (2.3 PCF)                                                                                                                          |



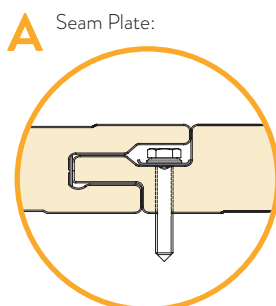
Joint detail.



Vertical panel installation



Horizontal panel installation



Seam Plate:

| Panel Thickness |                                 | Panel weight | U-Value | R-Value |
|-----------------|---------------------------------|--------------|---------|---------|
| mm              | inch                            |              |         |         |
| 50              | 1 <sup>31</sup> / <sub>32</sub> | 2.17         | 0.075   | 13.28   |
| 60              | 2 <sup>3</sup> / <sub>8</sub>   | 2.25         | 0.062   | 16.17   |
| 80              | 3 <sup>5</sup> / <sub>32</sub>  | 2.41         | 0.046   | 21.59   |
| 100             | 3 <sup>15</sup> / <sub>16</sub> | 2.58         | 0.037   | 26.99   |

## FUNCTIONS AND BENEFITS OF MASTER-F PANELS

- Aesthetically appealing
- Efficient thermal insulation capacity
- High mechanical strength
- Exceptional dimensional stability
- Watertight against water vapor
- Resistant to aggressive environments
- A versatile material that allows any configuration
- Quick to install and easy to maintain (easy to clean)
- Easily removable and can be reused
- Made-to-measure, avoids waste
- Made with recyclable materials

## REACTION TO FIRE



ASTM E84 (MASTER-PIR) Class A

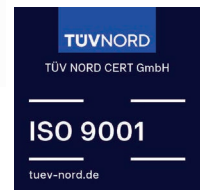
Flame Spread Index: **20**

Smoke developed index: **300**



C-s3 d0  
N° 3406T18

B-s1 d0  
N° 3066T16



## Testing and approvals:

Master Panel wall panel meet the most demanding requirements. We have large experience in producing insulated metal panels in our continuous production line and we have obtained the FL approval with reference #FL27199

| TEST              | TEST METHOD | RESULTS                                            |
|-------------------|-------------|----------------------------------------------------|
| Fire              | ASTM E 84   | Flame spread index 20<br>Smoke developed index 300 |
| Strength          | ASTM E 8    | > 32 ksi steel                                     |
| Wind Uplift       | ASTM E 330  | Design load up to 67.5 psf                         |
| Water penetration | ASTM E 331  | No water leakage at 12 psf                         |
| Permeability      | ASTM E 283  | < 0.004 cfm/ft <sup>2</sup> at 12 psf              |

## Master-F Wall Panel

| Panel Description                                                                                            | Support Spacing<br>(in) | Allowable Inward Load (psf)<br>FD1 & FD 2 | Allowable Outward Load (psf) |             |
|--------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------|------------------------------|-------------|
|                                                                                                              |                         |                                           | FD1                          | FD2         |
| Master F                                                                                                     | 36                      | 132.5                                     | <b>34.5</b>                  | <b>67.5</b> |
| Min. 26 ga. Exterior                                                                                         | 39                      | 122.3                                     | 33.7                         | 65.4        |
| & Interior Skins                                                                                             | 42                      | 113.6                                     | 32.8                         | 63.3        |
| Panel Core Thickness:                                                                                        | 48                      | 99.4                                      | 31.2                         | 56.3        |
| 1- <sup>31</sup> / <sub>32</sub> " , 2- <sup>3</sup> / <sub>8</sub> " , 3- <sup>5</sup> / <sub>32</sub> "    | 54                      | 88.3                                      | 29.5                         | 50.0        |
| 3- <sup>15</sup> / <sub>16</sub> " , 4- <sup>23</sup> / <sub>32</sub> " , 5- <sup>15</sup> / <sub>16</sub> " | 60                      | 79.5                                      | 27.8                         | 45.0        |
| (50, 60, 80, 100, 120                                                                                        | 66                      | 72.3                                      | 26.2                         | 40.9        |
| & 150 mm)                                                                                                    | 72                      | 66.3                                      | 24.4                         | 37.5        |
|                                                                                                              | 78                      | 61.2                                      | 22.5                         | 34.6        |
|                                                                                                              | 84                      | 56.8                                      | 20.9                         | 32.1        |
|                                                                                                              | 90                      | <b>53.0</b>                               | <b>19.5</b>                  | <b>30.0</b> |

Notes:

- Allowable load is the lowest value of panel strength, connection strength & deflection limit of L/180
- Allowable load is applicable to two or more span conditions.
- The bold numbers indicate design loads obtained from test reports.
- Panels must be installed as per Evaluation Report FL27199.1 and Master Panel current installation procedure.
- For Fastening Design FD1, U-clips are fastened to min. 14 ga. steel with (2) 1/4"-14 Type 3 SDS or to min. 16 ga. steel with (3) 1/4"-14 Type 3 SDS at all supports.
- The Fastening Design FD2 includes U-clip attachment plus 3 Fab-loks fasteners per panel width at supports. Fastener spacing is 9.8" (250 mm) o.c. from female edge of panel seam.
- Continuous bead of Dow Corning® 791 silicone weatherproofing sealant was field applied along the panel seams.
- The structural capacity of support beam are not considered and must be examined independently by others.
- Minimum bearing width of support is 2.5"



Master-F wall panels









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This document is not a safety manual.

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General Sales Conditions available on our website [www.magon.es](http://www.magon.es)





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