

# MADA PLUS FIRE RESISTANT PLASTERBOARD

## Technical Data Sheet

TDS-PB-R04-Rev2 Mada Plus Fire Resistant - 2024



### Advantage



Light weight construction, easy & fast installation



Sound & thermal insulation



Improved strength & sag resistant



Fire protection



Easy finishing



Mold resistance

### Product Description

Mada Plus Fire Resistant Plasterboards are the lightweight solution for most standard internal wall and ceiling applications where Fire Resistant properties are required. The high purity gypsum core utilizes fiberglass for increased strength and improved sag-resistance, which is then sheeted with the highest quality paper lining for a superior finish.



## TECHNICAL DATA SHEET

### Field of Application

- Residential buildings.
- Commercial buildings.
- Hospitals.
- Airports.
- Educational settings.
- Light industrial and manufacturing projects.

### Manufacturing Standards

- Mada Plus Fire Resistant Plasterboards are designed and produced to ASTM C1396 / C1396M Type X and EN 520 Type F standards.
- Mada Plus Fire Resistant Plasterboard has been tested in accordance with ASTM E84 and ASTM C473.
- Fire Rating (Mada System application) - Tested as per ASTM E119.
- Acoustic Rating (Mada System application) - Tested as per ASTM E90.
- Robustness of wall - Tested as per BS 5234-2:1992.
- Volatile Organic Compound (VOC) - Tested as per CDPH Standard Method v1.2..



CERTIFIED  
CLEAN AIR GOLD



*Tested and Certified as part of complete Mada System to ASTM E119 for Fire Rated Systems*

### Product Characteristics

- Length: Standard length is 2400mm, 2440mm & 3000mm. Special length is 1800mm to 4500mm.
- Width: 1200mm & 1220mm.
- Thickness: 12.5mm, 16mm. Special thickness: 15mm.
- Edge: Tapered, square, beveled.
- Color: Pink / Grey.

Note: For customized product requirements, contact Mada technical department.

### Technical Specification

| Parameters                               | Applicable Standard | Plasterboard Thickness      |       |       |
|--|---------------------|-----------------------------|-------|-------|
|  |                     | 12.5mm                      | 15mm* | 16mm  |
| Weight (kg/m <sup>2</sup> )              | ± 0.2               | 10.7                        | 13.9  | 13.9  |
| Board Density (kg/m <sup>3</sup> )       | Minimum             | 840                         | 913   | 856   |
| Flexural Strength (N)<br>(Longitudinal)) | ASTM C1396          | ≥ 476                       | ≥ 585 | ≥ 654 |
|  | EN 520              | ≥ 550                       | ≥ 650 | ≥ 688 |
| Flexural Strength (N)<br>(Transverse)    | ASTM C1396          | ≥ 157                       | ≥ 193 | ≥ 207 |
|  | EN 520              | ≥ 210                       | ≥ 250 | ≥ 269 |
| Nail Pull Resistance (N)                 | ASTM C1396          | ≥ 327                       | ≥ 374 | ≥ 390 |
| Asbestos (% by weight)                   | -                   | No asbestos fibers detected |       |       |

\*Special Requirements



## TECHNICAL DATA SHEET

### Test Data

| Property                        |                 | ASTM Test Method | Requirement   | Mada Plasterboard |
|---------------------------------|-----------------|------------------|---|-------------------|
| Noncombustibility               |                 | E136             | Noncombustible  | Meets             |
| Surface-Burning Characteristics | Flame spread    | E84              | Flame spread index, not greater than 25                                   | 15                |
|                                 | Smoke developed | E84              | -   | 0                 |
|                                 | Class A         | E84              | Flame spread not greater than 25 and smoke developed not greater than 450 | Meets             |
| Core Hardness                   | Field           | C473 (B)         | Not less than 49 N  | Meets             |
|                                 | End             | C473 (B)         | Not less than 49 N  | Meets             |
|                                 | Edge            | C473 (B)         | Not less than 49 N  | Meets             |
| Flexural Strength               | Transverse      | C473 (B)         | Not less than 157 N*  | Meets             |
|                                 | Longitudinal    | C473 (B)         | Not less than 476 N*  | Meets             |
| Humidified Deflection           | Wallboard       | C473             | Not greater than 32 mm*   | Meets             |
|                                 | Ceiling board   | C473             | Not greater than 8 mm*  | Meets             |
| Nail Pull Resistance            |                 | C473 (B)         | Not less than 327 N*  | Meets             |

\* Per ASTM C1396 for 12.5mm gypsum wallboard and gypsum ceiling board

### Finishing

For the highest quality finish, we recommend Mada finishing products.

All painting products and systems must follow the recommendations and requirements outlined in the Appendices of ASTM C840. For priming, texture, paint, and wallcovering finishes, always follow manufacturer's directions for proper use.

All surfaces and applied jointing compound must completely dry, dust free, and gloss-free. Prime surfaces with an undiluted, high-solids content, interior flat latex paint, and allow to dry thoroughly before painting or applying other finishes.

Where gypsum panel walls and ceilings are subject to critical natural or artificial lighting, skimming the entire wall surface with jointing compound can improve fastener concealment. Skimming before painting will equalize the tension and suction differences between the paper and the jointing compound.

### Handling and Storage

- Mada Plus Plasterboards must be stored on a firm, dry, and structurally sound flooring assembly, using pallets or board packs to avoid direct contact with the floor and moisture sources.
- Never stack Plasterboard pallets higher than 4 pallets in height.
- Do not store other materials on top of Plasterboard pallets.
- Protect Plasterboards from direct rain, wind, sunlight, or other inclement weather conditions.

### Limitations

- Avoid exposure to sustained temperatures exceeding 52°C.
- Avoid exposure to excessive, repetitive or continuous moisture before, during and after installation. Eliminate sources of moisture immediately.



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### Precautions for safe handling

- Minimize dust generation for sawing or sanding purposes in poorly ventilated areas.
- When working with individual sheets, always work from a single pallet, do not pull from stacks.
- Avoid eye contact – refer to Safety Data Sheet for hazard identifications and personal protective equipment.
- Plasterboards will not support body weight between rafters, joists, and framing members.
- Manual handling – Plasterboard sheets can be awkward without using an appropriate lifting technique. The weight of each sheet can vary based on different size and thickness factors.
- Mechanical handling – Pallet dimensions will vary, depending on the size of the plasterboards. To avoid overloading the lift truck, always check the palletized load weight provided within the weight tables.

### Conditions for safe storage, including any incompatibilities

Store on pallets supplied in dry conditions to separate product from ground surface. Always place pallets on firm level ground and ensure that stacks are both level and vertical.

| Board width (mm) | Board length (mm) | Pallet stack height pack |
|------------------|-------------------|--------------------------|
| 1200             | 2400, 3000        | 4                        |

### Material Packing Details

| Thickness         | 12.5mm | 16mm |
|-------------------|--------|------|
| Boards per pallet | 72     | 54   |

Note: Pallet weight may vary depending on packing (protection board, spacers ...).