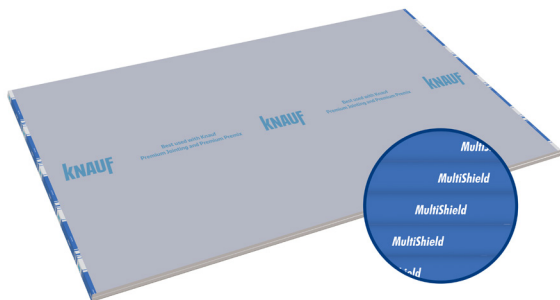


# Knauf MultiShield

Product Data Sheet (07/2025)



Knauf MultiShield is a dual-resistant gypsum board with the combined benefits and properties of FireShield and MoistureShield. It is suitable for interior walls and ceilings for areas where both fire and moisture resistance are required.

| PHYSICAL PROPERTIES         |                   |                        |
|-----------------------------|-------------------|------------------------|
| Thickness and Nom. Weight : | 13 mm             | 12.2 kg/m <sup>2</sup> |
|                             | 16 mm             | 14.9 kg/m <sup>2</sup> |
| Length x Width :            | 1220 mm x 2440 mm |                        |
| Edge :                      | Tapered, Squared  |                        |
| Color :                     | Blue              |                        |

## KEY FEATURES

- **Dual Resistance (Fire & Moisture):** Combines reliable fire resistance and splash/humidity protection
- **Reinforced High-Density Core:** Contains glass fibers and additives for durability and added fire resistance.
- **Low VOC:** Emits less than 20 µg/m<sup>2</sup>-hr of TVOC for better indoor air quality, tested per **ASTM D5116**
- **Manufactured in accordance with ASTM standards:**
  - ▶ **ASTM C1396** - Standard Specification for Gypsum Board
  - ▶ **ASTM E84** - Standard Test Method for Surface Burning Characteristics of Building Materials
  - ▶ **ASTM E1360** - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C.
  - ▶ **ASTM D5116** - Standard Test Method for Small-Scale Organic Emissions from Indoor Materials/Products
- **Environmental Safety:** Contains no hazardous substances; made using eco-friendly processes

## APPLICATIONS

- Ideal for interior partitions in environments that are exposed to humid conditions and require fire resistance, such as high-rise buildings, retail spaces, hotels, and schools.

## Limitations:

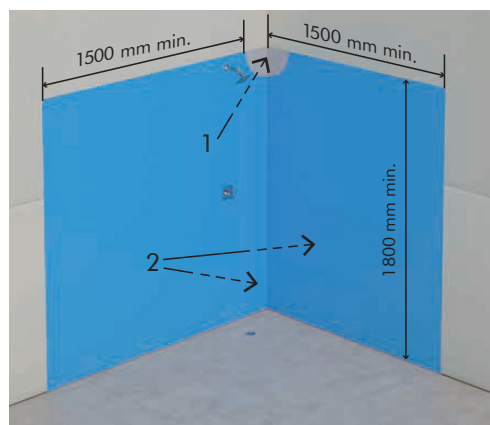
- Avoid exposure to sustained temperatures exceeding 40 °C and 95% RH
- Avoid exposure to excessive, repetitive, or continuous humidity, chemical fumes, freezing temperature, corrosive substance or vibration before, during, and after installation.
- Ensure wall, floor cavities, and enclosed areas are dry before closing up or applying finishes.
- Not recommended for use on high moisture exposure applications such as group shower, indoor swimming pool and sauna.

### KNAUF PLASTERBOARD INSTALLATION SYSTEM

Proper fireproofing and waterproofing are crucial for fire resistance, moisture protection and plasterboard durability. See the [Systems+ Manual](#) for your detailed user guide.

## DESIGN CONSIDERATIONS

- **Wet Areas:** MultiShield, can be used in wet areas. It is recommended that paint in wet areas be impervious to moisture for added protection as necessary.
- **Sealants:** Use appropriate fire caulk to seal openings and gaps in fire-rated partitions and ceilings. Apply waterproofing or water-resistant sealants as needed for specific conditions. Ensure a flexible waterproof sealant is used to seal sheet ends to surfaces such as preformed shower bases, baths, and plumbing fixtures.



### Waterproofing of unenclosed shower

1. The shower panel is sealed at all junctions
2. Waterproofing membrane

| MIN JOINT OFFSETS (mm)                               | MAX FASTENER SPACING                        |                |
|--|---|----------------|
|  | WALL TILES WEIGHT (INCLUDING TILE ADHESIVE) | FIELD OF BOARD |
| No greater than 12 kg/m <sup>2</sup>                 | 200 mm                                      | 150 mm         |
| >12 kg/m <sup>2</sup> and up to 32 kg/m <sup>2</sup> | 100 mm                                      | 100 mm         |



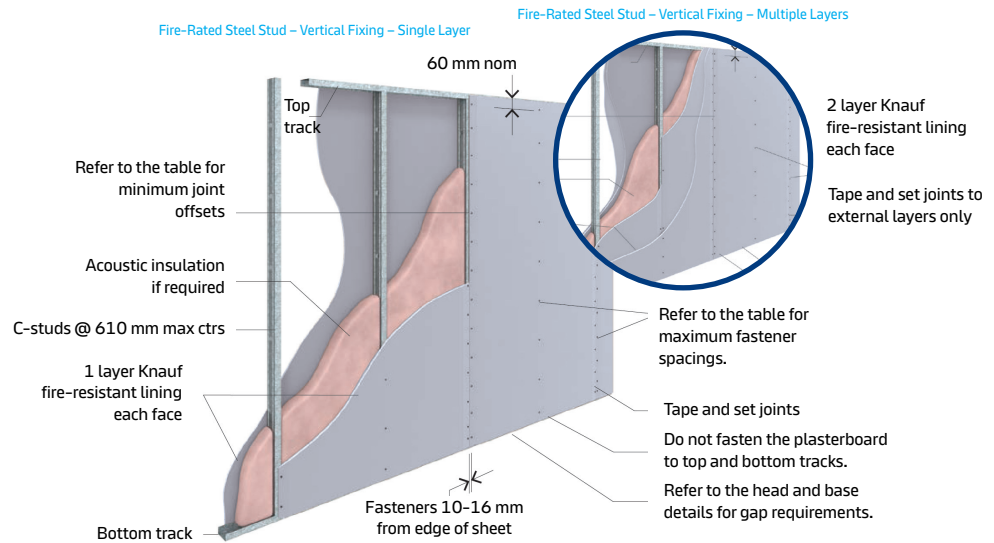
- **Fire-Rated Walls & Ceilings:** MultiShield partitions and ceiling systems comply with the Fire Code of the Philippines when joints and fasteners are correctly spaced and taped. Supporting structures must meet or exceed the required Fire Resistance Level (FRL) for optimal performance.

**MIN JOINT OFFSETS (mm)**

| LINING LAYER  | VERT JOINTS                    | HORZ JOINTS |
|---|--------------------------------|-------------|
| Inner/single layers on opposite sides or Adjacent layers on same side | One stud spacing (300 mm min.) | 300         |

**MAX SCREW SPACING (mm)**

| LINING LAYER       | INTERMEDIATE STUDS | VERTICAL EDGES                          | INT/EXT CORNERS & AROUND OPENINGS |
|--------------------|--------------------|---|-----------------------------------|
| Outer/single layer | 300                | 200 (stagger screws in abutting sheets) | 200                               |
| Inner layers       | 300                | 200                                     | 200                               |



- **Jointing:** Use Knauf Premium Jointing with paper tape for fire-rated partitions and ceilings, and Knauf setting-type compounds with paper tape for wet areas. Paper tape must be used in fire-rated and wet area systems to ensure optimal performance.

**PERFORMANCE**

Knauf MultiShield has undergone rigorous testing to ensure it meets high standards for performance and fire-resistance. Here's a summary of the test results along with the benefits of each aspect:

| Test                                | Results | ASTM C1396 Requirement           |         | Benefits  |
|-------------------------------------|---------|----------------------------------|---------|---|
|                                     |         | 13 mm                            | 16 mm   |   |
| Water Absorption of the Gypsum Core | Passed  | > 5% weight after 2 hr immersion |         | Offers strong moisture resistance, preventing swelling or deterioration in wet conditions, which enhances the durability and stability of the gypsum core in high-moisture areas. |
| Flexural Strength – Longitudinal    | Passed  | > 164 N                          | > 205 N | Provides durability and resistance to bending forces, allowing the plasterboard to withstand structural loads and impacts without sagging or breaking                             |
| Flexural Strength – Transverse      | Passed  | > 493 N                          | > 654 N |   |
| Hardness                            | Passed  | > 49 N                           | > 49 N  | Provides resistance to surface damage, helping walls maintain their appearance and integrity in high-traffic areas  |
| Nail Pull Resistance                | Passed  | > 347 mm                         | > 387 N | Secures fastening of fixtures and fittings, preventing tearing and enhancing the stability of installations.  |
| Humidified Deflection               | Passed  | < 30 mm                          | < 16 mm | Helps maintain shape and structural integrity even in humid conditions, making it ideal for use in moisture-prone areas like kitchens and bathrooms                               |

\*Knauf gypsum boards are manufactured in accordance with ASTM C1396



| System Type         | Fire Resistance   | Description   |
|---------------------|-------------------|---|
| Single-Layer System | Up to 64 minutes  | Provides fire resistance of up to 64 minutes when used as a system  |
| Double-Layer System | Up to 138 minutes | Provides fire resistance of up to 138 minutes when used as a system |

### GENERAL HANDLING TIPS

- Always use Personal Protective Equipment (PPE) during handling.
- To safely carry a gypsum board, two people should hold it at both ends.
- The gypsum board should rest on the carriers' shoulders while being carried.
- Use both feet to turn instead of twisting your waist or back.
- Ensure gypsum boards are securely positioned on pallets.

#### UNLOADING WITHOUT FORKLIFT TRUCKS

- A minimum of two people is required to manually unload the gypsum boards.
- One person must remain inside the truck to hand over the boards to the others on the ground.
- While carrying gypsum boards, ensure they rest on the carriers' shoulders.

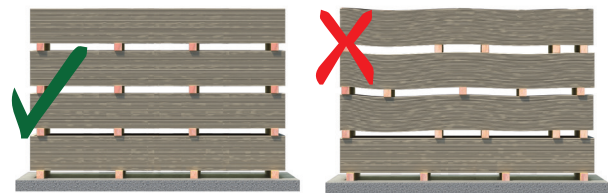
#### UNLOADING USING FORKLIFT TRUCKS

- Use a forklift truck with a minimum capacity of 3.5 tons to unload gypsum boards from the delivery truck.
- The unloading should be performed by a certified forklift operator.
- Position the forklift's "forks" between the billets. Secure proper placement of the boards to avoid accidents.
- Prepare billets in the desired storage location beforehand.

### PROPER STORAGE

- Store gypsum boards in a covered area, free from water leaks and excessive moisture. Boards should be kept in neat, flat stacks off the ground to prevent sagging and minimize damage to edges and surfaces.
- Position billets at right angles to the gypsum boards, with stacking supports spaced no more than 600 mm apart. Use five evenly spaced billets.
- The length of the billets should match the length of the gypsum board to properly support its weight.
- Gypsum boards can be stacked up to a maximum of five layers, with the following maximum number of sheets per layer:

13 mm - 70 sheets  
 16 mm - 58 sheets



# Submittal Sheet

| PROJECT INFORMATION |  |
|---------------------|--|
| Project Name        |  |
| Project Location    |  |
| Contractor Name     |  |
| Date of Submission  |  |

| REVIEW AND APPROVAL SECTION      |                          |                          |                          |                          |
|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Reviewer Name and Signature      |                          |                          |                          |                          |
| Product Name                     | Approved                 | With Revisions           | Rejected                 | For Further Deliberation |
| <b>FOR INTERIOR</b>              |                          |                          |                          |                          |
| <i>Gypsum Boards</i>             |                          |                          |                          |                          |
| StandardShield                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| SpanShield                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| MoistureShield                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| FireShield                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| DenseShield                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| MultiShield                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| EchoStop                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>Compounds &amp; Finishing</i> |                          |                          |                          |                          |
| Premium Jointing                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Premium Premix                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Paper Tape                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>FOR EXTERIOR</b>              |                          |                          |                          |                          |
| <i>Cement Board</i>              |                          |                          |                          |                          |
| Aquapanel                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Notes                            |                          |                          |                          |                          |

