MEDITE®
SMARTPLY®
INNOVATIVE TIMBER PRODUCTS






# MEDITE® EXTERIOR

MEDITE EXTERIOR is an MDF panel developed specifically for use in a wide range of external applications and gives all the design freedom of interior use MDF.

Developed at MEDITE's world class MDF facility in Clonmel, MEDITE EXTERIOR broadens the range of the MEDITE family of high performance MDF products.

## AT A GLANCE > MEDITE EXTERIOR:

- PERFECT FOR PAINTING/COATING
- HIGH DENSITY
- NO ADDED FORMALDEHYDE
- SUITABLE FOR EXTERIOR APPLICATIONS
- EU REACH COMPLIANT
- FSC® CERTIFIED

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DEFINING THE STANDARD OF MDF

DATASHEET

# MEDITE® EXTERIOR

## FEATURES & BENEFITS

- Designed for use in external conditions - a perfect substitute for softwood, hardwood, plywood, plastic and metal in non-stressed external applications for superior machinability
- Manufactured using no added formaldehyde resins
- Manufactured using exterior grade resin
- EU REACH and CARB 2 compliant
- Manufactured using FSC® certified timber

## SUITABILITY

MEDITE EXTERIOR is used as a substitute for softwood, hardwood, plywood, plastic and metal in non-structural applications. It can be used for a wide range of external applications including external signs, shop fronts and external woodwork including fascias, exterior mouldings, door parts - raised and fielded panels, garden furniture components, exterior display stands, marine craft interiors and sports score boards.

MEDITE EXTERIOR has been proved to withstand extremes of weather through an extended programme of exposure tests, complying with requirements for general purpose boards for use in exterior conditions. While MEDITE EXTERIOR is specially designed for external conditions, end-users must take care to make sure of the panel's longevity in its specified application.

## SPECIFICATION AND PERFORMANCE

MEDITE EXTERIOR is manufactured in accordance with the requirements of EN 13986 and EN 622-1 and complies with the requirements of the grade MDF-H (Option 2) of EN 622-5. When protected or coated it is suitable for applications in exterior, humid environments as defined by Use Class 3 of EN 335.

MEDITE EXTERIOR is distinguishable from other MEDITE MDF products by its grey identification colour.

In accordance with EN13986, the reaction to fire performance of MEDITE EXTERIOR with a minimum thickness of 9mm is D-s2, d0.

To ensure durability, adequately seal MEDITE EXTERIOR on all surfaces and edges with an exterior grade coating system. Avoid direct contact with soil. As with all natural products, linear movement will take place if MEDITE EXTERIOR is exposed to changes in relative humidity. A precautionary expansion gap of 5mm per 2440mm is recommended.

## SIZES

MEDITE EXTERIOR is produced in the following standard panel sizes.

Other sizes and thicknesses are available on request, subject to minimum order quantities.

| Dimensions | Thickness |
|---|---|
| 1220 x 2440mm | 6, 9, 12, 15, 18, 22, 25mm |
| 1220 x 2745mm | 15mm |
| 1220 x 3050mm | 15, 18mm |

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## MOISTURE CONTENT AND CONDITIONING

The moisture content of MEDITE EXTERIOR is typically in the range of 5-9% at the time of manufacture, and the panels are produced to close dimensional tolerances. As with all wood-based materials, changes in panel moisture content from the surrounding environment will result in changes to the dimensions of the panel (length, width and thickness). It is therefore important to condition the panels so that the moisture content of the panel is as close as possible to its final in-service moisture content at the time of installation, as this will mostly avoid any in-service distortion problems.

MEDITE EXTERIOR panels should be conditioned to the final environment for two to three days before cutting, finishing and fixing. Panels can be conditioned by stacking with spacers to improve air circulation. The moisture resistance of wood-based panels varies with product type, according to the specification, and the use of a product in the wrong Service Class or Use Class could lead to poor performance or premature failure.

Failure to allow panels to sufficiently condition can result in performance issues, such as warping or bowing.

## TRANSPORT, STORAGE AND HANDLING

Correct storage and handling are important for all wood-based panels, as it ensures the quality of the panels we supply is maintained, and that they will perform to the expected standard.

Panels should be stacked flat on a level surface with all four edges flush, sufficiently clear of the ground to avoid any potential splashing from water. Moisture resistant panels can tolerate high humidity conditions but direct contact with water should be avoided to prevent aesthetic surface damage.

When stacked on battens, they should be of equal thickness at maximum 600mm centres, and the overhang at ends and edges should not exceed 150mm. Where thin panels (6mm or less) are being stacked, it is recommended that they are supported under their whole area by a thicker panel (≥ 18mm).

Stacking panels on their edges should be avoided. Where space will only permit stacking on edge, then the edges should not come into direct contact with the ground or floor to avoid any possible moisture pick-up or damage.

Failure to follow written storage guidelines may result in reduced panel quality and could render the product unusable due to permanent warping or bending.

During transport the panels should be protected from any water or structural damage. When lifting, moving and stacking panels, edge protection should be provided to avoid damage by lifting ropes and/or forklift tines.

When handling pre-finished panels, it is essential to avoid damage or dirt on the finished surfaces. Pre-finished panels should be lifted from the stack and not slid. Incorrect handling of wood-based panels can result in either damage to the panels or injury to the operative, and it is therefore important that correct handling techniques are employed.

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## CUTTING AND MACHINING

MEDITE EXTERIOR MDF can be machined and cut by hand or with power tools using standard woodworking tools. It is important to follow standard woodworking best practice (sharp cutters, adequate support for saws and cutters, dust extraction etc.), as this will help ensure that a high-quality result is achieved safely.

High moisture content in a panel will affect the quality of the cut and should therefore be avoided wherever possible. Panels should also be cut to size after conditioning when a close cut is required, making sure the moisture content when machining the panel is as close as possible to its final in-service moisture content.

MEDITE MDF is pre-sanded, providing a smooth surface that is ready to be painted or laminated. However, if applying very thin surface foils, a further light sanding with 200 grit abrasive may be advisable. Excessive sanding of the faces should be avoided, as this can cause an imbalance on the surface which can lead to warping.

## FIXING AND GLUING

MEDITE MDF panels can be fixed using standard woodworking fixings (nails, screws or staples), adhesives, or a combination of fixings and adhesives (e.g. wood dowels). Fixings and fasteners used in external conditions should be corrosion resistant.

When using screws, it is recommended to predrill the panel to a diameter at least 85% of the screws core diameter. When inserted on the surface the fixings should be at least 12mm from the panel edge and 25mm from the panel corner. When inserted into the edge the fixing should be at least 70 mm from the panel corner. Nails and staples have lower holding capacity than screws and are usually used to hold glued joints during the setting time.

Adhesives can be used to fix panels in position, glue surface finishes to the MDF panels, or join panels or other wood-based products together. Most wood glues are suitable for use on MEDITE MDF panels. The type and grade of adhesive should be chosen for the application and end use conditions. Panels used in external conditions require the use of D4 grade adhesives. Attributes to consider include glue strength, moisture and durability performance, curing times, compatibility with other materials, where required, and ease of use.

## LAMINATING AND COATING

MDF is a suitable substrate for paints, stains, varnishes and textured coatings, and can be veneered and laminated with high- and low-pressure laminates, paper and PVC foils. MEDITE MDF can be decorated with conventional paints, coatings and stains, taking care that the appropriate primers are used. Some exterior varnishes with UV absorbers are available, which will preserve the colour and quality of the coating when used externally. Paint manufacturers should be consulted as to suitability.

There are a variety of paint and coating systems suitable for use on MDF panels for all interior, dry or humid conditions, or exterior applications. Always



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follow paint manufacturer's guidelines when coating MEDITE MDF panels to ensure the highest quality is achieved. It is recommended that corners and edges are rounded to a minimum radius of 3mm, by machining or light sanding, to enhance paint retention and ensure a continuous film thickness as all paints tend to draw away from a sharp edge or corner. This is particularly important with panels exposed to exterior conditions. The edges of MDF panels are more porous than the panel surfaces, and as a result, absorption at the edges is greater than on the face and care must be taken to ensure that edges are adequately sealed.

Wood veneers, plastic laminates, paper, and foils can be applied on MEDITE MDF panels. The appropriate adhesive should be selected for the manufacturing process and end use application of the finished product. In most applications the use of a balancing laminate or veneer is required to avoid panel deformation.

MEDITE EXTERIOR meets the requirements of class D4, durability category, of BS 4965, making it suitable as a substrate for decorative laminated plastics and veneers in areas of frequent and prolonged exposure to running or condensed water. When applying laminates to a substrate for use in external environments, it's important to consider the service class of the laminate and class of adhesives used, ensuring they are suitable for exterior grade applications. Failure to do so will compromise the quality of the substrate and reduce its service life.

# TECHNICAL SPECIFICATION SHEET

| Property | Standard | Unit | 4.0mm | >4.0mm to 6.0mm | >6.0mm to 9.0mm | >9.0mm to 12.0mm | >12.0mm to 19.0mm | >19.0mm to 25.0mm |
|---|---|---|---|---|---|---|---|---|
| Internal Bond | EN 319 | N/mm² | ≥ 0.70 | ≥ 0.70 | ≥ 0.80 | ≥ 0.80 | ≥ 0.75 | ≥ 0.75 |
| Modulus of Rupture | EN 310 | N/mm² | ≥ 27.0 | ≥ 27.0 | ≥ 27.0 | ≥ 26.0 | ≥ 24.0 | ≥ 22.0 |
| Modulus of Elasticity | EN 310 | N/mm² | ≥ 2700 | ≥ 2700 | ≥ 2700 | ≥ 2500 | ≥ 2400 | ≥ 2300 |
| Screw Holding Face | EN 320 | N | - | - | - | - | 1200 | 1200 |
| Screw Holding Edge | EN 320 | N | - | - | - | - | 1000 | 1000 |
| Thickness Tolerance | EN 324-1 | mm | ±0.15 | ±0.15 | ±0.15 | ±0.15 | ±0.20 | ±0.20 |
| Thickness Swelling (24 hrs) | EN 317 | % | < 30.0 | < 18.0 | < 12.0 | < 10.0 | < 8.0 | < 7.0 |
| **Dimensional Movement** | | | | | | | | |
| Length/Width | EN 318 | % | 0.40 | 0.40 | 0.30 | 0.30 | 0.30 | 0.25 |
| Thickness | EN 318 | % | 6.0 | 6.0 | 4.0 | 4.0 | 4.0 | 3.0 |
| **After Boil Test - EN1087-1** | | | | | | | | |
| Internal Bond | EN 319 | N/mm² | 0.20 | 0.20 | 0.15 | 0.15 | 0.12 | 0.12 |

The MEDITE MDF range delivers an innovative selection of products, each designed with specific performance benefits. **MEDITE CLEAR** is a no-added formaldehyde MDF panel for use in environmentally sensitive applications, where formaldehyde emissions need to be kept to a minimum.

Find out more.



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# QUALITY & ENVIRONMENTAL CERTIFICATION

All MEDITE MDF products supplied for use in the construction and civil engineering industries are CE marked according to the requirements of the harmonised European standard for wood-based panels EN 13986 - Wood-based panels for use in construction – characteristics, evaluation of conformity and marking. This provides the necessary assurance to customers and users that MEDITE conforms with the European MDF standard, EN 622-5 and meets all the essential requirements for the Construction Products Directive that are relevant to the product.

MEDITE operates under an Integrated Management System (IMS) for Quality (ISO 9001), environment (ISO 14001), Health and Safety (ISO 45001) and Energy (ISO 50001), which is certified by the National Standard Authority of Ireland (NSAI).

All MEDITE products are manufactured from Forest Stewardship Council® (FSC) certified timber, and other controlled sources.

MEDITE operates under an Industrial Emissions (IED) licence, which is monitored by the Environmental Protection Agency (EPA) in Ireland.



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CE

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# FORMALDEHYDE EMISSIONS – EU REACH AND CARB

An EU REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) revision (effective 06/08/2026) imposes new formaldehyde emission limits in Europe on all formaldehyde emitting products, including wood-based panels. This restriction is introduced under EU REACH Annex XVII (Formaldehyde Restriction). The limit of the harmonised standard for wood-based panels EN13986, known as E1, is 0.124 mg/m$^3$ and the new EU REACH restriction lower this threshold to 0.062mg/m$^3$ for wood-based panels, introducing the industry classification E05.

MEDITE EXTERIOR panels are manufactured with no added formaldehyde and therefore meet the lower EU REACH requirements (E05).

In accordance with the provisions of Third-Party Certification required within the Final Regulations Order of the Airborne Toxic Control Measure (ATCM) by the California Air Resources Board (CARB) all MEDITE MDF products are CARB Phase 2 Compliant. The approved Third-Party Certifier (TPC) Entwicklungs- und Pruflabor Holztechnologie GmbH (EPH – TPC No W-08-010) is contracted by MEDITE to perform the quarterly assessment of the factory production control and to have the stipulated formaldehyde tests carried out by the accredited EPH test laboratory.

## EXPLORE OUR MEDITE RANGE

For quick reference, see below our table that highlights each product's features and benefits.

| PRODUCT | General Purpose Joinery | Deep Routed Profiles | Can be Veneered/ Laminated | Moisture Resistant | Flame Retardant | Structural Sheathing Panel | No Added Formaldehyde | External Use |
|---|---|---|---|---|---|---|---|---|
| **MEDITE PREMIER** | ● | | ● | | | | | |
| **MEDITE MR** | ● | ● | ● | ● | | | | |
| **MEDITE INDUSTRIAL MR** | ● | ● | ● | ● | | | | |
| **MEDITE MR LITE** | ● | | ● | ● | | | | |
| **MEDITE LITE** | ● | | ● | | | | | |
| **MEDITE CLEAR** | ● | | ● | | | | ● | |
| **MEDITE EXTERIOR** | | | ● | ● | | | ● | ● |
| **MEDITE MR PLUS** | ● | | | ● | | | | |
| **MEDITE PREMIER FR** | | | ● | | ● | | | |
| **MEDITE VENT** | | | | | | ● | ● | |



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**For further information and/or technical advice please contact our dedicated customer service team.**


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The recommendations provided in this technical datasheet for the correct use of **MEDITE EXTERIOR** are specifically designed to ensure longevity and performance of this quality product in service. It is therefore essential that these recommendations are strictly followed.

The product is designed to be installed by a competent contractor, experienced with this type of product. MEDITE EUROPE DAC cannot be held responsible for damages arising from nonadherence to these recommendations, or product failures resulting from inadequate structural design or misuse of this product.

In order to provide comprehensive guidance for the correct use of **MEDITE EXTERIOR**, this technical datasheet makes reference to relevant BS and EN standards. MEDITE EUROPE DAC cannot be held responsible for claims arising from the use of any information that has been extracted from such sources.