

# EXTREME



**STORAGE, HANDLING and USER INSTRUCTIONS**

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## MEDITE TRICOYA EXTREME (MTX) Packages

MEDITE TRICOYA EXTREME is strapped with binding tape into standard labeled packs supported underneath by bolsters. Each unit contains a top and bottom packaging board for protection during transport.

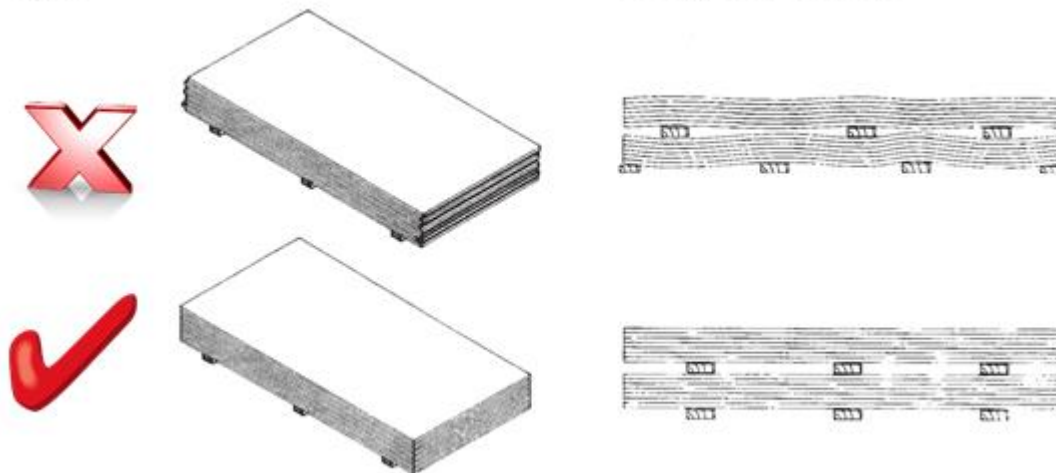
## STORAGE AND HANDLING

The following procedures must be followed for the storage and handling of MEDITE TRICOYA EXTREME:

1. The storage area must be dry with adequate ventilation to prevent dampness
2. Boards should be stored horizontally and elevated off the ground using dry bearers as supports
3. Storage on site should be a minimum of 100mm above concrete flooring and 300mm above ground
4. Individual bearers should be of equal thickness and have a minimum length equal to the width of the board
5. Board thickness of 15mm or higher should have a maximum bearer spacing of 800mm centres, subject to a minimum of three bearers
6. Board thickness of 12mm or lower should have a reduced bearer spacing
7. Ensure all bearers are vertically aligned
8. Care should be taken when stacking boards to ensure flush sides to minimise damage to protruding edges or over-hanging corners
9. It is recommended to cover the boards with a “vapour-open” plastic to prevent wetting during storage on site

Incorrect storage and handling may cause boards to develop a permanent set under their own weight.

Figure 1:



**Traceability:** A pack consists of MEDITE TRICOYA EXTREME and MEDITE packaging. Each pack has two labels which identify panel dimensions, quantity, production order number and container number. A 5cm wide white identifying stripe is marked on each of the long sides of the pack. All boards can be identified by a label printed on the top surface corner. The label will indicate product, thickness and the production order number (P.O.). The production order number is used by MEDITE to trace any product and is needed for any queries, issues or warranty claims. The production order number is also needed if a customer intends to offer products with certified sustainable wood certifications. All relevant documents should be retained and each pack tracked through any processes.

**Information Transfer:** This document should be communicated to any party that is using MEDITE TRICOYA EXTREME. Any further queries should be directed to MEDITE.

## USAGE

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MEDITE TRICOYA EXTREME can be used in exterior or wet/damp interior applications. It is a suitable substitute for treated softwoods, hardwoods, high grade exterior plywood's, plastic, cement based, metal or composite materials. The range of applications include exterior cladding or façades, shop fronts, signage, exterior doors, garden or outdoor furniture, playground equipment, backing boards, cubicles & wet rooms, flooring, marine fit out and more.

## ACETYLATION PROCESS

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Acetylation effectively changes the free hydroxyls within the wood into acetyl groups. These acetyl groups render the wood more dimensionally stable and, because it is no longer digestible, extremely durable. Acetyl groups are naturally present in all wood species. The acetylation process therefore adds nothing to the wood that does not already naturally occur within it, resulting in an end product with no added environmental toxins. The effect of altering the wood's chemical structure is to create a new product that is modified right through the cross section. By contrast, other wood preservative treatments merely insert chemicals (such as oils, ammonia or metal compounds) into the wood, improving durability but not dimensional stability.

## APPEARANCE

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MEDITE TRICOYA EXTREME is not a standard MDF panel. It is made from acetylated wood and therefore has a different appearance to standard MDF. MEDITE TRICOYA EXTREME has a slightly higher shive content due to its unique raw materials and refining techniques

## BOARD MOISTURE CONTENT

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There is little or no water chemically bound with wood in MEDITE TRICOYA EXTREME. The board is manufactured with a moisture content of between 3% - 5% which will vary slightly with ambient humidity. Moisture measurement results of 10% or higher may indicate the presence of "free water". Moisture content of the board should be below 10% before processing and coating application.

## PH AND RESIDUAL ACID

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The PH of MEDITE TRICOYA EXTREME is 3.5 – 5.5. This is due to several factors such as the wood, resin, and acetic acid. The acetic acid present in the board is due to the acetylation process which gives MEDITE TRICOYA EXTREME its distinct properties. The acetic acid gives the board a light vinegar smell. There are no health and safety issues from the presence of acetic acid in the board. The PH and residual acid may affect some paint, coating and adhesives systems e.g. curing or surface adhesion. Customers should always consult the paint, coating or adhesive manufacturer for product application guidelines. A small scale trial should always be performed before full application to determine the paint, coating or adhesive's performance

## PROCESSING

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MEDITE TRICOYA EXTREME can easily be cut, routed and bored with conventional wood working equipment. When cutting any wood-based panels, it is important to follow normal woodworking best practice. Processing of MEDITE TRICOYA EXTREME does not affect its unique properties. Tool wear rates on MEDITE TRICOYA EXTREME are similar to wear rates on MEDITE MDF. MEDITE TRICOYA EXTREME is denser and slightly more abrasive than common hardwoods. MEDITE recommend the use of Tungsten Carbide Tipped (TCT) tools. Diamond tipped tools may provide a superior finish.

**Sawing:** Saw blades developed for particleboards will cut MEDITE TRICOYA EXTREME with reasonable success. All types of MDF saw blades require higher clearance and increased tooth angles (Consult tool suppliers for further guidance).

**Machining:** To minimise sanding after machining, the cutter should produce at least 10 cutter marks per cm. This may need to be increased depending on required surface finish. Cutter marks per cm is a function of feed speed, the number of cutters and the RPM of the cutter (Consult tool suppliers for further guidance). It is recommended to sand the surface after machining.

**Sanding:** Carbide-based or modified “closed coat” abrasives are recommended for sanding.

**Face Sanding:** MEDITE TRICOYA EXTREME is shipped with a 120 grit finish. This provides a suitable surface for direct application of most veneers, plastic foils, HPL’s and painting. Further sanding may be required depending on required surface finish. Sanding to reduce thickness and heavy one-side sanding is not recommended.

**Edge Sanding:** Cut edges may require sanding with a 180 grit paper.

**Dust Extraction:** Minimum air velocity of 23-30 m/sec is recommended for dust extraction. As with other wood species with higher acid levels, caution should be taken to prevent long term exposure of wood machinery and exhaust systems to dust. Appropriate PPE should be worn during sanding.

## FASTENERS

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MEDITE only recommended stainless steel fasteners with A2 or A4 (EN 10088-1) quality or AISI type 304 or 316.

The same practice for drilling timber and wood-based timber panels should be used when drilling MEDITE TRICOYA EXTREME. Pilot holes should be half the diameter and depth of the screw being used. This may need to be increased depending on screw type.

Screws should not be located too close to the corners of edges of the board. On the face of a board a screw should be at least 25mm from the edge. On the edge of the board a screw should be at least 75mm from corners. Small diameter stainless steel nails can be used provided the same practice for screws is followed. The nails should be spaced at least 150mm spacing to reduce the risk of core delamination.

When stainless steel is not available, metals and/or the MEDITE TRICOYA EXTREME should be coated or otherwise separated to avoid the two coming into direct contact. Indirect contact issues can occur in non-ventilated areas where condensation related corrosion is possible for example lock rebates (Consult fixing suppliers for further guidance).

Panels should be fitted with spacers and not fitted flush to any masonry or brickwork. Expansion gaps MUST be fully filled with an elastic sealant at the time of fixing.

**Fixing Distance:** MEDITE TRICOYA EXTREME is a non-structural material. All forces should be directed to a structurally sound support. An allowance for a small degree of movement should be provided (see Technical Specification Sheet). Maximum recommended fixing distances in non-wind exposed areas are shown in table below. Professional advice should be sought when fixing MEDITE TRICOYA EXTREME in wind exposed areas.

<b>RECOMMENDED FIXING CENTRES</b> (non-wind exposed)	
Thickness (mm)	Maximum Distance (mm)
6 – 9	300
12	450
15	600
18	750

## **ADHESIVES**

D4 class or equivalent adhesives must be used with MEDITE TRICOYA EXTREME. This is due to the applications that MEDITE TRICOYA EXTREME will be exposed to. PVA, PU, RPF, or EPI wood adhesive systems have been successfully used and are all available in D4 classification.

The low moisture content of MEDITE TRICOYA EXTREME may affect the curing of some adhesives. To mitigate this, the customer can spray a layer of water over the adhesive once it is applied to the MEDITE TRICOYA EXTREME; this will provide the adhesive with the moisture it needs to cure. This is common practice when gluing materials with low moisture content.

A small scale trial should always be performed before full application to determine the adhesive performance (Consult adhesive suppliers for further guidance).

## **COATING**

MEDITE TRICOYA EXTREME can be coated the same way as timber or other wood-based products. Coating can be performed in a factory setting or by hand. A factory finish system is recommended to ensure the finish is applied in optimum conditions. It is the customer's decision on what coating system to use on MEDITE TRICOYA EXTREME. MEDITE recommend that customers seek guidance from the coating manufacturer to ensure the product will perform appropriately with MEDITE TRICOYA EXTREME and proper application guidelines are established. Several coating manufacturers offer extended coating guarantees on MEDITE TRICOYA EXTREME - See download section on Coating Guarantees.

Moisture content should be below 10% before processing and coating application. The edges and corners must be slightly rounded (3mm radius minimum) by light sanding or machining to improve paint retention in these areas. MEDITE recommend all surfaces and edges are coated with the same system and number of coats. For coating guidelines – See download section for MEDITE TRICOYA EXTREME Usage Guidelines – Windows, Doors and Ancillaries.

**Maintenance:** All coating systems will require regularly cleaning, maintenance and eventual recoating. The guarantees for MEDITE TRICOYA EXTREME do not apply to coatings or any other products that interact with the board.

## HYDROPHOBIC SURFACE

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MEDITE TRICOYA EXTREME is slightly hydrophobic compared to standard MDF meaning it will repel water. The stated drying time by coating manufacturers for water-based coatings may need to be increased. The hydrophobic properties may affect the application of other products.

## OUTDOOR USE

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MEDITE recommend that a suitable exterior coating is applied to MEDITE TRICOYA EXTREME. All timber and timber-based products are susceptible to weathering during exterior applications. Weathering will cause MEDITE TRICOYA EXTREME to discolour and develop a rougher surface texture. Discolouration can also occur around metal fasteners or through exposure to aggressive cleaning agents, foods and other substances. Weathering does not affect the dimensional stability and durability of MEDITE TRICOYA EXTREME.

## MOULD

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Mould and algal growths can occur on any timber or wood-based panels. Their presence is related to temperature, humidity, wetting and the presence of atmospheric mould spores.

Moulds and algal may grow on the surface of coated or uncoated MEDITE TRICOYA EXTREME. The mould or algal growth will not decay the board or affect its dimensional stability and durability.

Customers should review the location of a site to determine if it would classify as high risk for biological growth and would necessitate a biocide additive in the paint formulation. Biocides help prevent the growth of mould and algae of the surface of painted timber.

Most mould can be easily removed with regular cleaning. Coating manufacturers will have set guidelines for cleaning and the removal of mould growth.

## ENHANCE DIMENSIONAL STABILITY

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MEDITE TRICOYA EXTREME exhibits enhanced dimensional-stability but this does not mean it is completely inert. Changes in temperature and humidity can cause slight changes in MEDITE TRICOYA EXTREME's volume and linear dimensions.

When fixing the product to various substrates consideration should be given to the combined dimensional movement of both the substrate and MEDITE TRICOYA EXTREME. As a general rule of thumb allow an expansion gap of 5 mm/2440 length of board for ease of maintenance and any combined system expansion that may take place.

## WOOD WASTE AND END OF LIFE CONSIDERATION

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MEDITE TRICOYA EXTREME waste can be handled in the same way as standard MDF. MEDITE TRICOYA EXTREME is non-toxic and does not require any special disposal considerations.

### **Disclaimer:**

The information contained in this document is provided as guidance by MEDITE SMARTPLY. It is the responsibility of the customer and/or end-user of MEDITE TRICOYA EXTREME (MTX) to ensure that the final use of the panel is checked by the proper authorities on conformity with local circumstances, building codes, regulations and standards and checked by a licensed engineer.

As we continually update our technical literature, please check on [www.mdfosb.com](http://www.mdfosb.com) that you have the latest version.