



Technical Product Guide

EXTREME
MEDITE tricoya

HIGH
PERFORMANCE
WOOD PANEL

Contents

Introduction		16
What is MEDITE TRICOYA EXTREME (MTX)?		
Applications		
Acetylation Process		
Manufacturing Process		
MTX Properties		
Product Specifications		
Moisture Content	3	16
Dimensional Stability	3	16
Durability and Use Class	4	17
Residual Acid Content and pH	5	18
Emissions	6	18
Thermal Conductivity	7	19
Thermal and Moisture Expansion	8	19
Sd Values	9	19
Fire Behaviour	9	19
MTX Packages	10	19
Storage and Handling	11	19
Identification	11	19
Information Transfer	11	20
Processing	11	20
Dust Removal	11	21
Sawing	12	22
Machining	12	22
Drilling	12	22
Sanding	12	22
Fixing	13	22
Fasteners	13	22
	14	22
	14	23
	15	23
	15	23
	15	23
	15	23
	15	23
	15	24
	15	24
	16	24
	16	24

Introduction

The MEDITE TRICOYA EXTREME (MTX) Product Guide provides uses of MTX with the current best practice guidelines and recommendations for the handling and use of MTX.

Should you require any further information or guidance, please contact your local technical sales manager, or send an email to: sales@mdfosb.com

This is revision 0 of the MTX Product Guide. To confirm this is the most up to date version and check for other potentially useful information please check our website: www.mdfosb.com

What is MEDITE TRICOYA EXTREME (MTX)?

MEDITE TRICOYA EXTREME (MTX) is a high performance wood-based panel manufactured from acetylated wood chips bonded together with a synthetic resin. It is a completely new, innovative form of wood panel product. It demonstrates outstanding durability and stability in the most extreme and challenging environments and in both exterior as well as interior applications.

The product uses proprietary acetylation wood technology and a modified fibre board manufacturing process to create a wood panel product with outstanding durability and stability. MTX offers a solution for specifiers and consumers in environments of wet, high humidity or fully weather exposed applications to deliver superior performance in versatile large panel form.

Applications

MTX can be used in external and internal environments. The range of applications include cladding, façades, doors, outdoor furniture, playground equipment, swimming pools, wet rooms, saunas, marine fit out and more. Visit our [website](#) for case studies of how MTX has been used.



Infinitus Bespoke Interiors



Trubridge Lights



SAM Trimax Cladding



Bakers Timber Buildings



Paul Newman Landscapes



Exterior Solutions Ltd

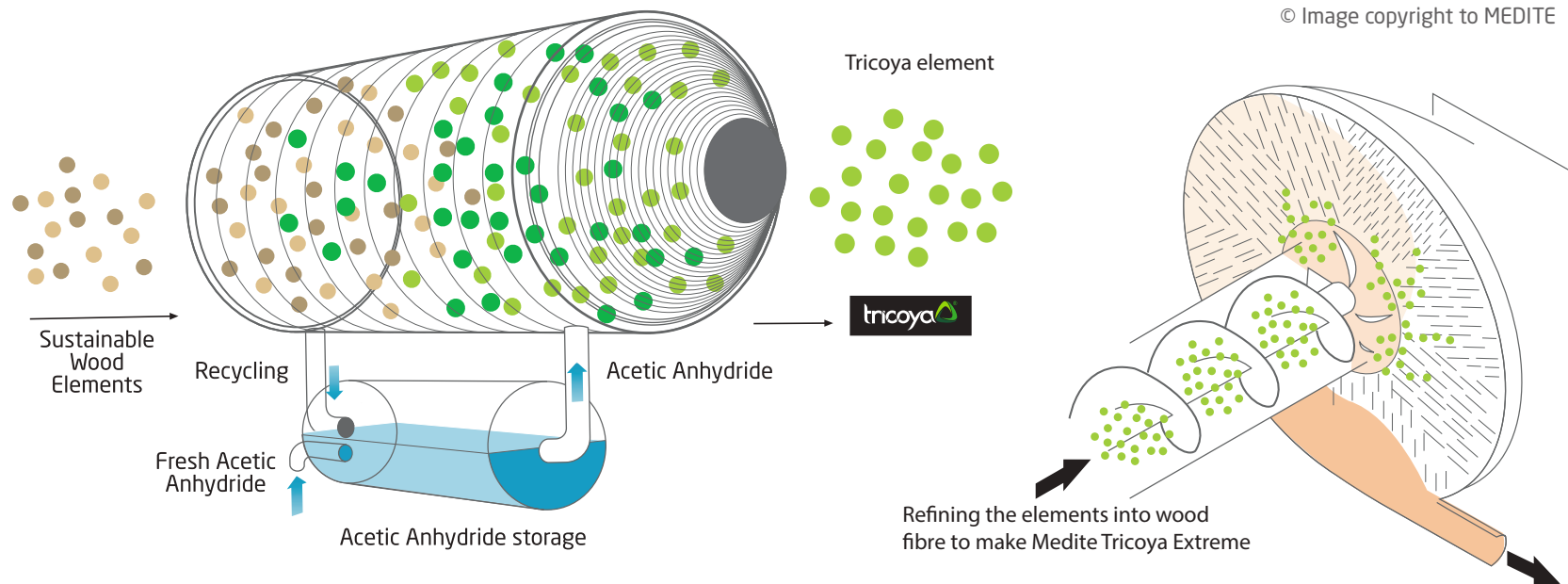


Alex Devereux

Acetylation Process

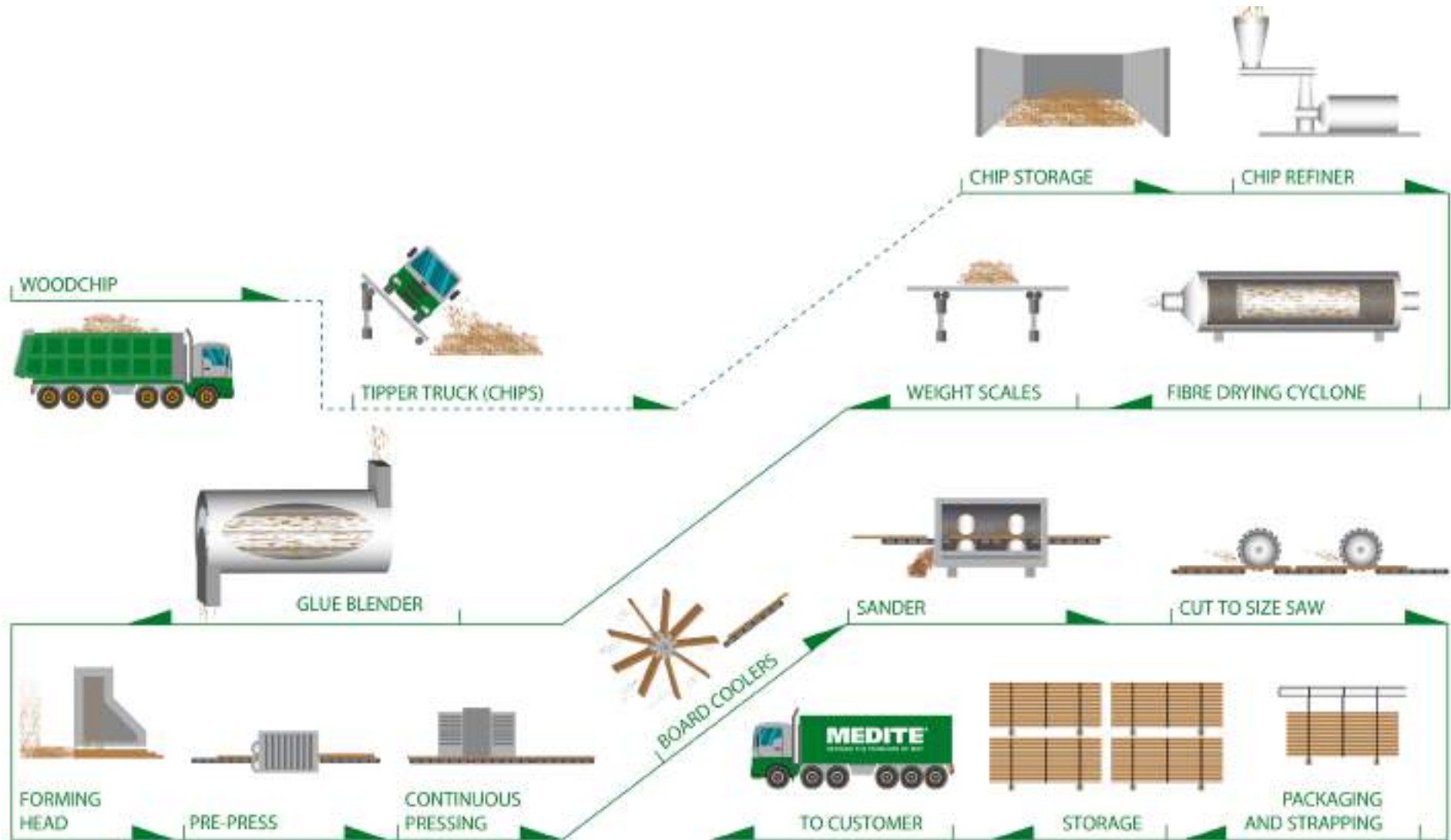
Acetylation is a sustainable process which increases the number of naturally occurring hydrophobic acetyl groups in the wood cells using acetic anhydride. The process exchanges the hydroxyl groups (chemical formula: $-OH$) with acetyl groups (chemical formula: $-COCH_3$) preventing water absorption at these sites, and thus, enhancing the dimensional stability and durability of the wood.

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. Apart from creating an exceptional dimensional stability, the acetylation process enables MTX to achieve Class 1 Durability, leading to resistance to biological decay which exceeds other wood-based products.



Manufacturing Process

The acetylated wood chips are used to produce MTX using MEDITE SMARTPLY's unique manufacturing process:



MTX Properties

MEDITE TRICOYA EXTREME (MTX) panels exhibit outstanding durability and dimensional stability. The added benefits of light weight, moisture stable, sustainable raw materials and extended guarantees offer endless opportunities for external and internal use.



DURABLE

Longer lasting, perfect for external and internal wet environments



50 YEAR GUARANTEE

Peace of mind with a 25 year in-ground and 50 year above ground guarantee



ENHANCED STABILITY

Swelling and shrinking dramatically reduced



DESIGN FREEDOM

All the design, fixing and machining flexibility of MDF



SUSTAINABLY SOURCED

FSC® certified. Wood used from sustainable sources



LOWER MAINTENANCE COST

Extended periods between exterior coatings maintenance



PERFECT FOR COATING

Improved stability and durability enhances service life of the coating. Damaged coating will not affect the core



RESISTANT TO FUNGAL DECAY

Effective barrier to fungal decay



DESIRED SERVICE LIFE OF 60 YEARS

Independent testing by BRE shows an expected service life of 60 years for exterior use

Product Specification

The values listed are based on the minimum specification requirements for MTX manufactured by MEDITE SMARTPLY. All parameters are compliant with EN 622 parts 1 & 5.

MTX is classified as MDF-H.2 but also passes specification for MDF-H.1. This means that MTX is suitable for use in internal dry and humid conditions and external conditions.

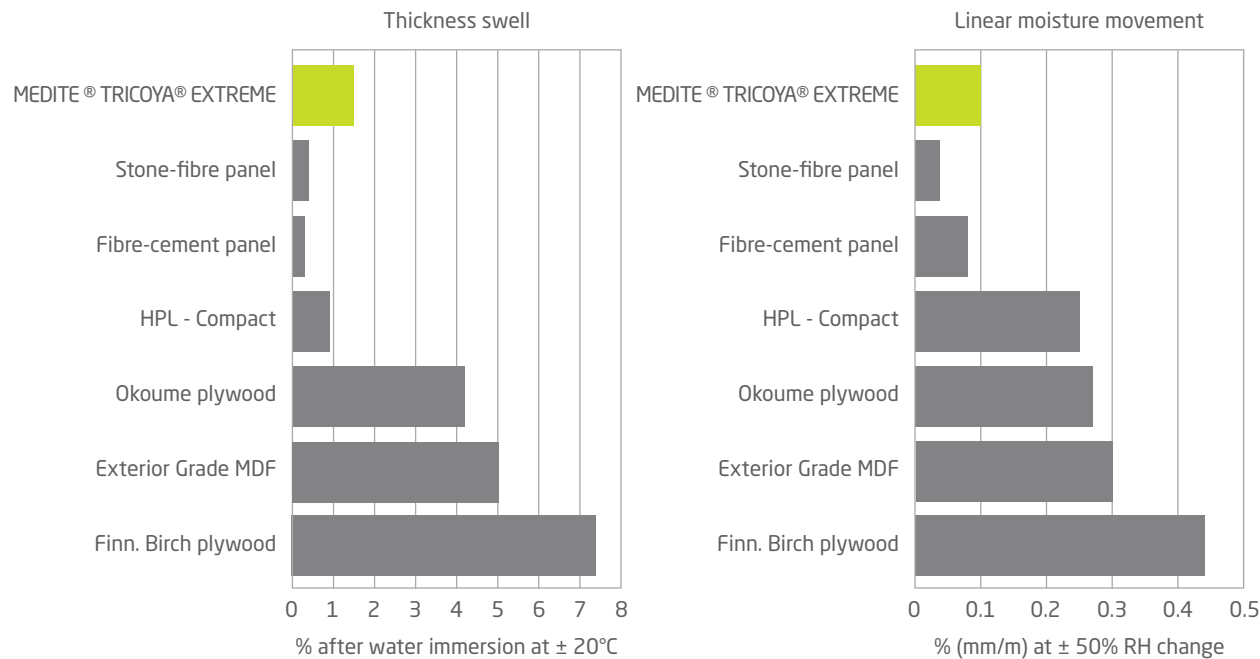
Property	Range	Test Method	Units	Thickness					
				4	6	9	12	15	18
Density	+/- 30	-	kg/m ³	720	720	720	720	700	680
Internal bond	Min	EN 319	N/mm ²	0.8	0.8	0.8	0.8	0.8	0.8
Modulus of rupture	Min	EN 310	N/mm ²	30	30	30	25	20	20
Modulus of elasticity	Min	EN 310	N/mm ²	3000	3000	3000	2500	2500	2500
Screw holding (Face)	Min	EN 320	N	-	-	-	-	900	900
Screw holding (Edge)	Min	EN 320	N	-	-	-	-	700	700
Thickness swell (24 hrs)	Max	EN 317	%	2.5	2.5	2.0	2.0	1.5	1.5
Internal bond after boil test	Min	EN 319	N/mm ²	0.65	0.65	0.65	0.65	0.65	0.65
Thermal conductivity	-	EN 12664/67	W/mK	0.101					
Reaction to fire	-	EN 13501-1	Class	E					
Free formaldehyde	Max	EN 120	mg/100g	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dimensional tolerance	Length / Width	EN 324-1	mm/m	+/- 1.0					
	Thickness	EN 324-1	mm	+/- 0.15					
Dimensional change per 1% change in moisture content	Length / Width	EN 318	%	+/- 0.1					
	Thickness	EN 318	%	+/- 1.0					
Coefficient of thermal expansion	-	NPL	mm/m°C	0.0137					
Dimensional movement per 10% RH change	-	NPL	mm/m	0.25					

Moisture Content

MTX is manufactured with a moisture content of <5%. Moisture content will vary slightly depending on ambient temperature and humidity. If a measurement shows moisture content greater than 10% this may indicate the presence of “free water”. The MTX should be allowed to dry before processing, gluing, or coating. Moisture content should be below 10% before processing and coating applications.

Dimensional Stability

MEDITE TRICOYA EXTREME has a dimensional stability similar to non-wood materials. MEDITE TRICOYA EXTREME expansion/contraction due to moisture content is around 1%. This expansion/contraction can differ depending on panel thickness.



Durability and Use Class

Wood resistance to rot and decay is measured on a scale of 1 to 5 with 1 being the most durable. MTX achieves durability class 1 as defined in EN 350 and is suitable for use classes 1 - 4 defined in EN335. MTX is fully resistant to decay by basidiomycetes fungi in accordance with DD ENV 12038: 2002 exterior use. This assessment was carried out by BRE: The UK's national lab for construction product testing and assessment.

MEDITE TRICOYA EXTREME (MTX) is guaranteed for 50 years above ground, 25 years in ground contact and freshwater immersion. MTX is resistant to salt and can be used in environments close to saltwater. MTX is not warranted for permanent immersion in saltwater or resistance against attack from marine organisms.

Durability Class (EN350)	Description
1	Very durable
2	Durable
3	Moderately durable
4	Slightly durable
5	Not durable

Use Class EN335	Conditions of Use	Wetting	Wood Moisture Content
1	No contact with the ground, sheltered and dry	Permanently dry	< 20%
2	No contact with the ground, sheltered with little chance of becoming wet	Occasionally exposed to moisture	> 20%
3	No contact with the ground, not sheltered in all weather conditions	Regularly exposed to moisture	> 20%
4	In contact with the ground	Permanently exposed or in contact with fresh water	> 20%
5	In contact with salt or salt water splash zones	Permanently exposed to salt water	> 20%

Residual Acid Content and pH

MTX contains a small amount of residual acetic acid from the acetylation process. The residual acid results in a light vinegar-like odour when processing MTX. The level of residual acetic acid in the wood will not exceed 1.8%. MTX in contact with water will have a pH in the range of 3.5 - 5.5. This is due to several factors such as wood type, resin, and residual acid. The pH and residual acid may create compatibility issues with coatings, glues, and fixtures. Please see the applicable sections for each in this guide.

Emissions

MTX is a NAF (no added formaldehyde) product. The product is independently tested by an accredited institute in line with EN16516 to ensure NAF compliance. Certification is available on request.

Thermal Conductivity

Thermal conductivity, also referred to as the lambda (λ) value, is the property of a material to conduct heat. The lower the λ value, the better the insulation property of the material. The lambda value (λ , W/mK) is used for thermal calculations on buildings and thermal components.

MTX has been tested in accordance with BS EN ISO 10077-2 by an UKAS accredited testing laboratory as specified in ISO 17025. A total of 12 samples from 12 different lots were tested.

Thickness Range (mm)	4 to 18
Thermal Conductivity (W/mK)	0.101

The lambda value stated in the table above is λ^D and is based on results provided by Thermal Measurement Laboratory, University of Salford UKAS Accredited Testing Laboratory No. 1660. Test method BS EN ISO

12664/67.

Thermal and Moisture Expansion

The thermal expansion of MTX is 0.0137 mm/mK, which means that with every degree temperature rise, a panel of MTX measuring 1 metre in length would expand 0.0137 mm. The moisture expansion of MTX is 0.25 mm/m per 10% RH change, which means that with every 10% increase in relative humidity, a panel of MTX measuring 1 meter in length would expand 0.25 mm. When prolonged exposure to extreme high humidity, the total moisture expansion of MTX would be approximately 0.28 mm/m per 10% RH change.

S^d Values

Diffusion Equivalent Air Layer Thickness (S_d) is a measure of a materials resistance to the transmission of water vapour through it. The units of S^d are given in metres and it refers to the resistance shown by the equivalent thickness of air.

S^d ≤ 0.5 m (diffusion-open, will let water vapour through)

S^d > 0.5 m (diffusion-blocking, will let some water vapour through)

S^d ≥ 1500 m (diffusion-proof, will stop water vapour getting through)

MEDITE TRICOYA EXTRME S^d-values:

Thickness (mm)	Wet Cup S ^d (m)	Dry Cup S ^d (m)
6	0.35	0.38
9	0.53	0.58
12	0.71	0.77
15	0.89	0.96
18	1.06	1.15

The S^d-values provided in the table above are based upon average μ values (wet cup μ = 59; dry cup μ = 64) tested at Fraunhofer Institute of Building Physics (IBP).

Fire Behaviour

The Euroclass system was introduced to harmonise standards across the EU. It categorises products into one of seven reaction to fire classes ranging from A1 (highest) to F (lowest). All wood-based products are combustible to some degree, due to the organic nature of the raw materials. MTX achieves a Euroclass E rating.

EN 3501-1 - Reaction to Fire Values:

Euroclass	Definition
A1	Non-combustible materials
A2	Limited combustibility materials
B	Combustible materials - Little or no contribution to fire
C	Combustible materials - Limited contribution to fire
D	Combustible materials - Contributes to fire
E	Combustible materials - High contribution to fire
F	Combustible materials - Easily flammable or not tested

Additional classes for smoke development (S1 to S3) and droplets (d0 to d2).

Some coating systems can improve the reaction to fire performance of the finished system. MEDITE SMARTPLY recommends that coating suppliers are contacted to enquire about the systems performance and installation requirements.

MTX Packages

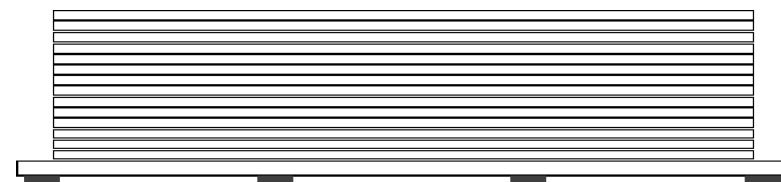
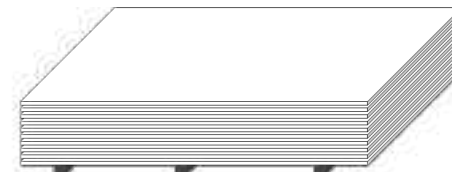
MTX is strapped with binding tape into standard labelled packs supported underneath by bolsters. Each unit contains a top and bottom packaging board for protection during transport.

Storage and Handling

The following procedures must be followed for the storage and handling of MTX:

1. The storage area must be dry with adequate ventilation to prevent dampness
2. Panels 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 panel
5. Panel thickness of 15mm or greater should have a maximum bearer spacing of 800mm centres, subject to a minimum of three bearers
6. Panel thickness of 12mm or less should have a reduced bearer spacing
7. Ensure that all bearers are vertically aligned
8. Care should be taken when stacking panels to ensure flush sides to minimise damage to protruding edges or over-hanging corners
9. It is recommended to cover the panels with a "vapour-open" plastic to prevent wetting during storage on site

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



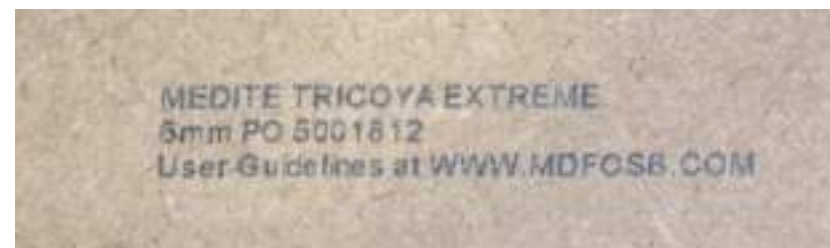
Thin panels

Identification

A pack of MTX 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 panels can be identified by a label printed on the top surface corner. The label will indicate product, thickness, and the production order number. The label will indicate product, thickness, and the production order number. The production order number is used by MEDITE to trace any product and is needed for any queries, issues or guarantee 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.

Label Key:

Panel size	18mm thickness x 1220mm width x 3050mm length
Production order	50001791A 50 = Product code for MEDITE TRICOYA EXTREME 01791 = Run Number A = section/cut size from master panel
Container	1842305 is the pack / container number
Pieces in pack	Number of panels in the pack/container
12 of 28	Pack 12 of a total of 28 pack in the PO



Information Transfer

This document should be communicated to any party that is using MTX. Any further queries should be directed to MEDITE SMARTPLY.

Processing

MTX can easily be processed with conventional wood working equipment and tools. When cutting any wood-based panels, it is important to pay attention to woodworking best practice. Sharp cutters, adequate support close to saws and cutters, elimination of machine vibration, correct allowance for saw kerf etc will all help to ensure that an optimum finish is achieved in a safe fashion. Carbide-tipped tools are recommended for normal work on any scale. Diamond- tipped tools may be best for high-volume operations.

Dust Removal

Efficient dust removal for all cutting and machining operations helps to prolong tool life, by reducing potential overheating of the cutting tool. A minimum air velocity of 23-30 m/sec is recommended for dust extraction.

Sawing

Standard saw blades developed for wood-based panels are suitable to use on MTX. As MTX panels have a uniform structure blades developed for cross cutting such as ATB should be used. Optimum sawblade geometry may need to be considered for high-volume operations to ensure maximum efficiency.

Optimum Sawblade Geometry	
Top bevel angle	15° alternative
Side clearance	2° to 4°
Tip to body clearance	0.25mm 0.45mm
Clearance angle	20° to 22°
Hook angle	15°
Chip load	0.15 to 0.25mm

Machining

MTX can be machined into different profiles with standard woodworking equipment. Best practice for machining timber and wood-based timber panels should be followed. Cutters must be kept sharp as dull cutters will result in a poor finish. Cutters generally incorporate cutting angles in the range 15° to 25° and clearance angles in the range 15° to 18°.

To achieve an optimum surface finish a machining operation should be selected to produce at least 10 cutter marks per cm. This can be compared to 6 cutter marks per cm which would be acceptable in a typical solid wood machining operation. Achieving the recommended cutter marks per cm is a function of material feed speed, the number of cutters and the rotational speed of the cutting block.

$$\text{Feed Spin (m/min.)} = \frac{\text{RPM} \times \text{No. of cutter edge}}{100 \times \text{cutter marks/cm}}$$

MEDITE recommend that customers contact their tool supplier for their expertise and guidance on optimum machining setups.

Drilling

MTX can be drilled using all types of woodworking drill bits. Best practice for drilling timber and wood-based timber panels should be followed. Pilot holes should be used, and drill holes should be 25mm-75mm away from the edge/corner of the board.

Sanding

MTX is sanded to a 120-grit finish. This provides a smooth surface suitable for most applications. For a high-quality finish when applying a coating/paint it is recommended to adequately prepare the surface by sanding with a higher grit paper. Excessive sanding of the faces should be avoided as it can cause an imbalance in the panel. Silicon carbide abrasives are generally the best option for sanding wood-based panels.

Fixing

Fasteners

MTX can be fixed in the same way as other wood-based panels and the same best practices should be followed. MEDITE recommend that customers use stainless steel A2 or A4 (EN 10088-1) quality or AISI type 304 or 316. The A4 quality should be used in challenging environments and high exposure level applications.

As MTX is manufactured from acetylated wood, the product contains a very small acid level of residual acid comparable to durable wood species such as oak and western red cedar. These organic acids are the main cause of corrosion of metal fasteners used in wood. High grade aluminium and brass have also been shown to be corrosion resistant when in contact with MTX and may be suitable in some applications.

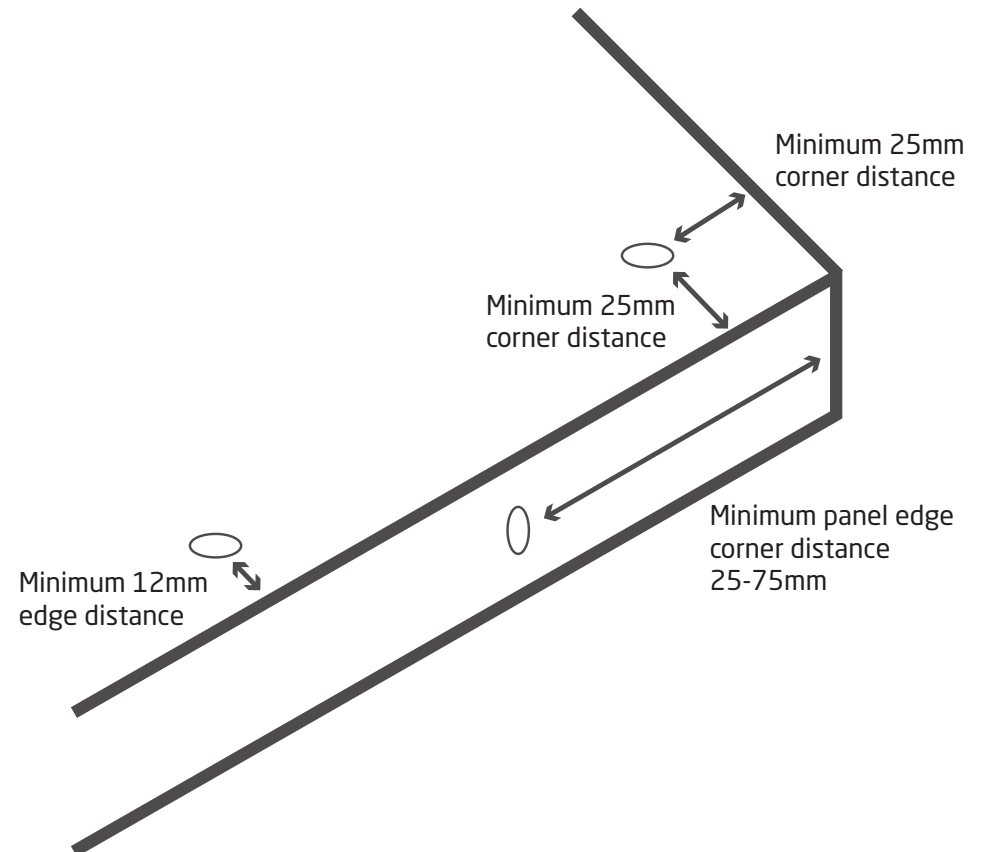
When stainless steel fixtures or other corrosion resistant metals are not available, the fasteners and/or the MTX should be coated or otherwise separated to avoid the two coming into direct contact. Indirect contact issues can occur in non-ventilated areas where condensation related corrosion is possible.

Positioning

Pilot holes should be used and should be located in line with best practices. Typical minimum edge distance of 12mm should be used with a minimum distance of 25mm from the corner. Fixings into the panel face should not be nearer than 12mm from edges or 25mm from corners. The minimum dimension is affected by the type of fixing and panel thickness and smaller dimensions can be achieved in some circumstances.

Fastener Size

Fasteners should generally be long enough to allow about 20mm penetration into the substrate or have an overall length of about 2.5 times the panel thickness, whichever is the greater. Where engineering design requires a certain fastener type and spacing, this must be adhered to.



Metals

All wood contains organic acids, and the amount will vary by species. In moist conditions, these organic acids contribute to the corrosion of metal fasteners used in wood. MTX has comparable acid levels to many other wood species such as oak, teak, douglas fir and western red cedar. Any metal components in contact with MTX should be A2 or A4 (EN 10088-1) quality or AISI type 304 or 316. The A4 quality should be used in challenging environments and high exposure level applications. Other suitable metals are naval brass and corrosion resistant aluminium (grades 3003, 6005, 6060 and 6063).

Metals Susceptible to Corrosion from Organic Acids Emitted from Wood			
Severe	Moderate	Slight	Insignificant
Carbon steels	Copper and copper alloys	Nickel	Stainless steel
Low alloy steels			Naval brass
Lead and lead alloys		Low grade aluminium	Corrosion resistant aluminium
Zinc and zinc alloys			

When stainless steel, corrosion resistant aluminium or naval brass is not available it is important to take precautions using lesser grade metals. The metal and/or the MTX should be coated or otherwise separated to avoid direct contact.

Adhesives

MTX can be bonded using polyurethane (PU), emulsion poly isocyanate (EPI), epoxy and phenol resorcinol formaldehyde (PRF) adhesive systems. The application and performance requirements will determine what type of adhesive is suitable.

It is recommended to test the compatibility of an adhesive to determine finish quality and performance. Best practice and product guidelines provided by the adhesive supplier should be followed.

Selecting an Adhesive

When selecting an adhesive, the performance aspects below should be considered:

1. Strength
2. Moisture resistance and long-term durability
3. Curing times
4. Application environmental conditions

Adhesives are classified according to EN204 into 4 main classifications, classes D1 - D4. The applications that MTX will be experiencing lead to a requirement for D4 class adhesives. D4 class adhesives offer the strongest and most durable bond.

Classes	Application Examples
D1	Indoor with temperature rarely or shortly above 50°C Relative humidity of wood does not exceed 15%
D2	Indoor in possible contact with condensation water during a short period of time or exposed to high relative humidity during limited periods Wood relative humidity can reach 18%
D3	Indoor in frequent contact with condensation water or during a short period of time or exposed long term with high humidity Outdoor protected from rain
D4	Indoor in frequent and important contact with condensation water Outdoor exposed to rain, if adequate cover is applied on the bonded substrate (the bond must be painted, varnished or covered to be D4)

MTX has a lower moisture content compared to standard timber therefore the curing of an adhesive may be affected. To mitigate this, moisture can be added by spraying a mist of water onto the adhesive. Small scale compatibility testing of the adhesive with MTX is recommended before progressing to full production.

Types of Adhesives to use with MTX

PU

PU (polyurethane) adhesives are available in one part or 2-part adhesive. The 2-part adhesive will usually cure more quickly and provide a stronger bond. The 1-part adhesive provides a suitable bond with no mixing required.

PF

PF (phenol formaldehyde) is a two-part adhesive that creates a bond which is thermally stable, highly chemically resistant, and waterproof. The system provides a hard and rigid bond.

EPI

EPI (emulsion polymer isocyanate) is a two-part adhesive that creates a bond which is thermally stable, highly chemically resistant, and waterproof. The system also has a low VOC content and does not contain any formaldehyde.

Note on PVA

PVA (polyvinyl acetate) commonly known as wood glue or white glue is a 1-part adhesive that creates a strong and flexible bond. Most PVA adhesives are only D3 class and would not be suitable for external use. 2-part systems are available that improve the classification to D4, however, the bond produced is not as strong as PU, PF or EPI and may still deteriorate over time in an external application. MEDITE do not recommend the use of PVA for any external or wet applications. PVA may be used for internal dry applications.

Sealants and Fillers

Typical sealants and gaskets used in the joinery industry can be used with MTX. The pH and residual acid in MTX may affect the curing process of some products. It is recommended that the sealant supplier performs a compatibility check.

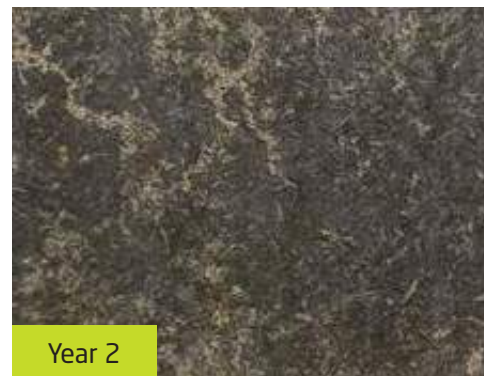
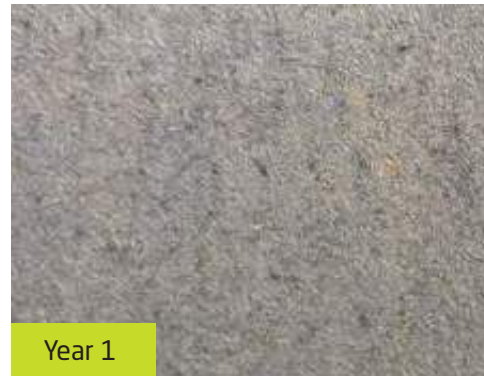
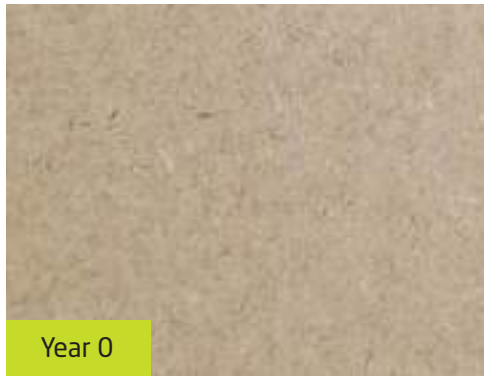
External grade two component filler systems (e.g. epoxy or polyurethane) are recommended. Supplier guidelines should be followed.

MTX Coatings

Uncoated

MTX does not need to be coated to maintain the durability and dimensional stability performance of the product. As with natural wood and other wood-based products, MTX is susceptible to weathering in outdoor conditions. The surface of any wood will be affected by UV, biological processes, mould, and pollution. The wood in the MTX panel will begin to grey and under certain conditions will be more susceptible to moulds, mosses and algae settling and growing on the surface. Though unsightly, moulds, stains, mosses, and algae do not degrade MTX and will not affect the performance of the product. The amount of weathering and mould growth is determined by exposure level and environmental conditions. A finish can be applied to MTX after it has been affected by weathering. Best practice guidelines for refurbishment and coating of weathering timber should be followed, contact MEDITE SMARTPLY for further information.

The MTX and cladding samples below were exposed in line with EN 927-3 Natural Weathering Test and would be considered high exposure.



Coatings

MTX can be coated in the same way as timber and other wood-based panels. To ensure optimum coating performance it is recommended that customers involve the coating supplier. The coating supplier can provide the expertise and knowledge needed for any application.

MEDITE SMARTPLY have a range of certified coating suppliers for MTX. It is recommended that customers use one of the certified systems.

Supplier	System	Exposure Level		
		Mild	Medium	Severe
Teknos	Factory finished - Opaque	10 years	7 years	6 years
Sikkens	Factory finished - Opaque	6 years	6 years	6 years
	Brush-applied - Opaque	6 years	5 years	4 years
Remmers	Factory finished - White or light coloured paints	10-12 years	7-9 years	6-8 years
	Factory finished - Dark coloured paints	8-10 years	6-8 years	6-7 years
Anker Stuy	Factory finished - White or light coloured paints	6-8 years	6-8 years	4-6 years
	Factory finished - Dark coloured paints	4-6 years	4-6 years	3-4 years
Dulux Trade	Opaque (brush-applied)	8 years	6 years	5 years
PPG	Factory finished - Opaque	8-10 years	6-8 years	5-6 years
Sherwin-Williams	Factory finished - White or light coloured paints	10 years	7 years	6 years
	Factory finished - Dark coloured paints	6 years	5 years	4 years

Preparation

- MTX should be stored correctly as stated on page 13
- The MTX panels should be clean and free from dust or any contaminants
- MTX moisture content should be below 10% before processing and coating application
- The environmental conditions in the application area and coating storage area should be in line with the coating supplier guidelines (typically, coating should be done in 20°C and 60% relative humidity. Coatings should not be sprayed or stored below 15°C)
- Coating specifications and guidelines set out by the coating supplier must be followed such as surface preparation, wet film thickness, drying techniques etc
- Customers should review the location of a site to determine if it would classify as high risk for surface biological growth and would necessitate a biocide additive in the coating formulation

Opaque coatings (film forming)

Opaque coating systems should be applied with a minimum dry film thickness that corresponds to the requirements of the end use, location and/or coating supplier instructions. Opaque coatings with calcium carbonate (chalk fillers) may cause coating blistering on MTX and should be avoided. Please consult coating supplier for guidance.

Translucent coatings (non-film forming)

As MTX does not have a wood grain look but a uniform fibre appearance, translucent coatings are not recommended. If a translucent coating is desired, a mid to dark base stain should be uniformly applied and then a translucent topcoat. The coating supplier should be involved to provide expertise and guidance.

End Grain Sealers

End grain sealers are an essential component of a coating system. The end grain is the most vulnerable part of external joinery for moisture ingress. MTX is dimensionally stable, however excessive moisture ingress can have a negative impact on coating performance and appearance. All edges, machined surfaces and joints/connections should be effectively sealed using an end grain sealer which is compatible with the coating system.

Best Practice Guidelines for Joinery

These guidelines are supplemental to information provided by coating suppliers.

- A fully factory applied coating is strongly recommended. If site finishing is required, then at least a primer and mid coat should be applied in the factory and the topcoat must be applied before the joinery gets wet on site
- All edges/corners should be rounded to 3mm radius to improve coating retention and maximise maintenance intervals
- The construction design should avoid flat surfaces and areas where water can collect. Surfaces should incorporate a gradient and machined edges should be bevelled to allow water to natural run off. A fall of 1:60 is typical
- All gaps/holes should be sealed to prevent water entering the construction
- If the coating is damaged during installation the necessary repairs should be performed in line with the coating supplier guidelines
- Coated joinery should be stored and protected from the elements. Storage areas should be well ventilated and not subject to extremes of temperature
- Any airtight packaging should be removed to allow free ventilation of the joinery
- A permeable cover should be used to avoid dust and other contaminants

Brush / Manually Applied Coatings

To ensure best results and performance, any coating on MTX should be fully factory/industrially applied. If site finishing is required, a primer and mid coat should be factory applied and the topcoat applied before the coated MTX gets wet on site.

The same guidelines set out by MEDITE and coating manufacturers must be followed for manual application of coatings. Brush application will achieve a wet film thickness of around 70 - 80 µm. Multiple coats will be needed to build the dry film thickness required for an exterior grade system. Light sanding with a high-grit sandpaper between coats will improve the surface finish.

Laminates

The surface of MTX can be covered or overlaid with wood, HPL, CPL and melamine papers. Laminates can be applied in the same way other wood-based panels. The low moisture content and pH of MTX may affect the curing of adhesives used to bond the laminate.

It is recommended to engage with the adhesive supplier for guidance. Any system should be correctly balanced with a suitable balance/back board. For further information please contact MEDITE.

Cladding and Façade Applications

MTX is suitable for a wide range of exterior applications such as cladding, façade panelling, fascias, soffits, etc. For detailed cladding and façade information such as fixing distance, wind loading, and ventilation please consult the MTX Cladding Brochure which is available for download on the [website](#).

Maintenance

All joinery will require regular maintenance and eventual recoating. Coating systems applied to MTX will have an increased lifespan due to the unique properties of the product. The information below is intended as a guide, customers should contact the coating supplier for expertise and guidance.

1. Inspect all joinery at least once a year
2. Repair any small areas of coating damage as soon as possible
3. Wash surfaces with a solution of warm water and liquid detergent, ensuring the water is changed frequently
4. Rinse thoroughly with clean water, use deionised water for best results
5. Do not use high pressure washerson the material
6. The build-up of dirt on joinery surfaces can encourage mould growth
7. If there are signs of mould growth the joinery should be fully inspected and the mould removed as soon as possible
8. Treat affected areas with a solution of one-part household bleach to two-parts water
9. Allow 20 minutes to act and wash off with cold water and a stiff nylon brush, use deionised water for best results
10. Recoat when there are general signs of wear
11. It is recommended that customers contact the coating supplier for expertise and guidance

CE and UKCA Marking

All MEDITE products supplied for use in the construction and civil engineering industries are CE marked according to the requirements of the harmonized European standard for wood-based panels EN 13986. This provides the necessary assurance to customers and users that MTX conforms to the European standard, EN622-5 and meets all the essential requirements for the Construction Products Regulation (CPR) that are relevant to the product. MTX is also UKCA (UK Conformity Assessed) marked.

Wood Species

MTX is manufactured using the following wood species:

- Radiata Pine (Pinus Radiata)
- Scots Pine (Pinus Sylvestris)

MEDITE SMARTPLY can also confirm that it is willing to provide any further information relating to the species and country of origin of the timber and/or wood-based products that it supplies.

FSC®

The FSC® logo represents the Forest Stewardship Council®, and it signifies that the wood or paper product originated from a forest that was managed carefully with trees, animals, and local community benefit at heart. MTX is covered by MEDITE SMARTPLY FSC® certification. Accoya wood is received into MEDITE SMARTPLY with FSC® Mix 70% claim and MTX leaves MEDITE SMARTPLY with a FSC® Mix 70% claim. FSC® Chain of Custody numbers are available on request.

Waste Wood and End of Life Considerations

MTX waste can be handled in the same way as wood and other wood-based panels. MTX is non-toxic and does not require any special disposal considerations. Given its long product life, guarantee, and durability, MTX can be repurposed and reused.

MEDITE SMARTPLY has a range of technical literature to assist in the use of MTX. Please refer to the product page on the website for these documents. Contact us for further assistance.

UK: +44 1322 424900

Ireland: +353 5 181 0205

Germany: +49 32221097221

France: +33 975189830

Netherlands: +31 858886230

Belgium: +32 28086256

info@mdfosb.com

www.mdfosb.com/mtx

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.

MEDITE® is a registered trademark of MEDITE EUROPE DAC ("MEDITE") and cannot be used or reproduced without MEDITE's written permission. TRICOYA® and the trimarque device are registered trademarks owned by Titan Wood Ltd. ("TWL"), a subsidiary of Accsys Technologies PLC, and may not be used or reproduced without written permission from TWL or Tricoya Technologies Limited, who have exclusive rights to exploit the Tricoya® brand.

V1-0124

