

## MEDITE TRICOYA EXTREME (MTX) – The Facts

MEDITE TRICOYA EXTREME (MTX) is a ground-breaking construction material. It demonstrates outstanding durability and stability in the most extreme and challenging environments — exterior as well as interior, wet and high moisture applications.

The product uses proprietary acetylated wood technology (the method used to produce Accoya®) and a modified fibreboard manufacturing process to create a wood panel with outstanding durability and stability. MEDITE has led the market in technical innovation, and MEDITE products are recognised as the benchmark for quality, consistency and performance.

Accoya® wood is produced from sustainably sourced, fast growing wood (Radiata Pine) and manufactured using Accsys' proprietary patented modification process (Acetylation).



	Facts	Strengths	Limitations	Consequence/ Recommendation
<b>Timber structure</b>	<p>The acetylation process effects a reaction with the hygroscopic (water absorbing) properties of timber.</p> <p>The paper-like straw cells in the timber used are chemically altered so the fibres themselves do not absorb water.</p>	The wood fibres are rendered non-absorbent to water by the modification process.	<p>Although the wood fibres don't absorb water, the wood cells can still take up, and hold water. As a result, the panel may take longer to dry than standard wood-based panels. Moisture can be trapped beneath the coating, so it's very important it is <i>dry</i>.</p> <p>The maximum moisture content is &lt;10%.</p>	<p>Water must not be allowed to enter the panel, especially via edges. It's unlikely that our standard primers or basestains are sufficient, even if applied wet on wet, unless at least 4 coats are applied</p> <p>Our new work specifications allow for an additional finishing coat. Maintenance specs remain as standard.</p>
<b>“End grains”/edges and joints</b>	Whereas the acetylation treatment produces an “open” structure for the timber vessels, the nature of the manufactured panel means passage of water along the length of the timber is less likely.	The wood fibres do not rapidly absorb moisture.	Moisture entering the end grain/edges can be a problem.	<p>The use of a proprietary end-grain sealer(s) is strongly recommended (e.g. Sikkens Kodrin WV456)</p> <p>Any coating system must completely seal the end grain and machined surfaces.</p> <p>Also: High quality adhesives are required – may need to check with joinery manufacturer.</p>
<b>Environment and sustainability</b>	Both MTX and Accoya are non-toxic and 100% recyclable. It is carbon dioxide (CO <sub>2</sub> ) negative over the full life cycle.	It has excellent environmental credentials and is guaranteed against decay for 50 years.	Although the timber is sustainably sourced, it has to be shipped from New Zealand.	<p>As always, there is a fine balance of sustainability factors/credentials. More detail is available at <a href="http://www.accoya.com">www.accoya.com</a> and <a href="https://mdfosb.com/en/medite/products/medite-tricoya-extreme">https://mdfosb.com/en/medite/products/medite-tricoya-extreme</a></p>
<b>Corrosion and (blue) staining</b>	Acetic acid, which occurs naturally in many timbers, is a by-product of the acetylation process, although the levels are controlled and not excessive.	Acidic levels in MTX and Accoya are similar to those in other naturally durable timbers.	<p>As with any acidic timber, the corrosion of metal fixings is a risk.</p> <p><i>Any organic components can potentially lead to the growth of bluestain fungus, especially when the moisture content is high.</i></p>	<p>The use of stainless-steel fixings is strongly recommended, or at the very least “coated” metal fixings.</p> <p><i>To minimise the possibility of any problems resulting from bluestain, a basecoat/primer is required which contains a bluestain inhibitor.</i></p>
<b>Durability</b>	MTX and Accoya® wood's durability (rot resistance) is Class 1, matching and even exceeding the performance	The acetylation of the wood is <u>complete</u> . The treated product will not require replacement		MTX and Accoya can be finished with almost any coating system.

	of nature's most durable timbers.	above ground for at least 50 years.		
	<b>Facts</b>	<b>Strengths</b>	<b>Limitations</b>	<b>Consequence/ Recommendation</b>
<b>Location/Use</b>	It is suitable for almost all situations.	Can be used in demanding external applications, even in fresh water.	Our coating systems would not be appropriate for this location (Hazard Class 4).	
<b>Dimensional Stability</b>	MTX has superior dimensional stability (resistance to swelling and shrinkage) exceeds all commonly used all timber species and alternative panels	There is minimal movement of the timber, greatly reducing the stress on the coating, reducing the likelihood of peeling and flaking, even when using dark coatings.	Coatings (especially water-borne), are not absorbed so deeply into the panel.	
<b>Stability (joinery)</b>	The stability is excellent, regardless of location.	Reduced swelling and risk of jamming in humid conditions • Less frequent coatings maintenance – suggested twice as long.	Thorough drying is essential before coating: air-flow, ventilation and temperature are key!	Suggest Exterior face - Vapour permeable coating, i.e. water-borne Interior face – Less permeable coating, i.e. solvent-borne/oil-based Moisture content must be <10%
<b>Profiles</b>	As with most panels, edge corners will be "square", i.e. no rounding.			In accordance with Best practice, exposed corners (especially horizontally), should be rounded to a minimum 3mm radius.
<b>Calcium and Acetic Acid</b>	MTX contains residual acetic acid (from the acetylation process). This is mobilised by the presence of water within the wood.	Acetic acid is a natural component of timber, albeit in smaller quantities.	Acetic acid reacts with calcium*, producing calcium acetate, salts of which can result in microblisters. * Calcium can originate from extenders (chalk) in paint. Also from hard water if/when used to thin water-borne products.	To use coatings which do not contain calcium extenders. This may not be feasible with opaques. Preservative primer will help. This explains why woodstains have been less affected than opaques To use distilled/deionised water to thin coatings where necessary.
<b>* Fire rating</b>	MTX is classified as Euroclass E within the Euroclassification system.		If compared to BS476, classification, Euroclass E is "Flammable, BS Class 4	MEDITE advise that this is not generally considered an issue, but users should be aware of this, particularly when used internally.

## Summary

- MTX and Accoya should have a moisture content of below 10% before coatings are applied, preferably ~6%
- Accoya is prone to the bluestain fungus, although similar problems have not been encountered with MTX. As a precaution, however, a bluestain inhibiting primer/basecoat/preserver should be applied to any bare surface.
- Use of this "pre-treatment" (not opaque, i.e. not containing calcium), should provide a barrier to prevent the interaction of calcium and acetic acid when using opaque undercoats/finishes
- The edges are susceptible to moisture ingress. Coatings should be applied to seal edges. Ideally, the use of a proprietary end grain sealer (such as Sikkens Kodrin WV456) should be considered
- At least the primer/basecoat and first coating of any system should be applied all round components in controlled conditions, i.e. ideally in an interior location/workshop
- Full coating systems must be applied, using wet film thickness gauges where appropriate to confirm this.
- Any water-borne coatings, if thinned, should be done so using de-ionised/distilled water
- Consideration should be given to adapting the following principle in the coating/finishing system:
  - Exterior face – medium to high vapour-permeability coating, i.e. water-borne
  - Interior face – less permeable coating, i.e. solvent-borne/oil-based

Standard specifications are now available for both New work and Maintenance, Solvent-borne and Water-borne, Opaque and Translucent, in Dulux Trade and Sikkens product coating systems.

*For further information on specification of AkzoNobel coatings, please contact AN Technical Advice Centre on 0333 222 7070*

\* N.B. While Medite advise that this is not generally considered an issue, users should be aware of this, particularly when specified internally. The overall construction must be taken into account, not the fire rating in isolation.

System Code	D4031 MTE Dulux Trade Weathershield Exterior High Gloss
Building Part	Fascia, Soffits, Eaves, Barge Boards, Cladding, Surrounds, Doors, Facing, Screens, etc.

Surface Substrate	Wood – Medite Tricoya Extreme MTX
Previous Coating	None / New
Surface Condition	Good (New Uncoated)
Durability Performance	High
Finish Type	Solvent Based
Sheen	High (Gloss)
Brand	Dulux

Required Finish Coat	Dulux Trade Weathershield Exterior High Gloss
Data Sheet Number	401

- Comply at all times with BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended).
- Imperial Chemical Industries Limited (t/a ICI Paints AkzoNobel) will not accept responsibility for any unauthorised amendments or usage of the wording contained in this System sheet and in Paint's Site Work Instructions v8.
- In order to achieve the optimum results, it is extremely important to adhere to the systems and Imperial Chemical Industries Limited (t/a ICI Paints AkzoNobel) Site Work Instructions v9 quoted.
- Products supplied for the carrying out of this specification are compliant with Statutory Instrument 2005 No. 2773 (Environmental Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005.

#### Preparation

Thoroughly clean down to ensure all areas are free from dirt, grease and surface contaminants.

Remove oils from surface by wiping with a sharp solvent.

Round all sharp edges (a radius of 1mm to 2mm for timber other than sills and thresholds; 3mm for sills and thresholds) and \*dust off.

Note: When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v9 Clause SW4.20 for further information).

#### Priming

MTX may contain acetic acid which will corrode ferrous metal fixings.

All metal fixings should be stainless steel, galvanized, plated, sheradised or similar.

Spot prime any bare metal, metal fixings, nail heads etc with: 1 coat of Dulux Trade Metalshield Quick Dry Metal Primer.

LIBERALLY APPLY 2 coats of Dulux Trade Weathershield Preservative Primer + (BP) overall.

#### \*Caution

Weathershield Preservative Primer +(BP) contains: 3-iodo-2-propynyl-n-butyl carbamate and propiconazole. Use Biocides safely. Always read the label and product information before use.

#### Edges

Seal exposed edges with Sikkens Kodrin WV456. Apply to saturation using a small stiff brush or small filling knife.

Allow to become transparent before overcoating (typically 2 hours).

Note: Failure to ensure sealers are not fully dry before overcoating may cause subsequent coats to crack.

On Medite Tricoya Extreme it would be beneficial to apply two coats of end grain sealer Sikkens Kodrin WV456.

#### Making Good

Make good all cracks, nail-holes, open joints and other imperfections with Dulux Trade Weathershield Exterior Flexible Filler.

When set carefully rub down and \*dust off.

Fillers, Stoppers and Glazing Compounds

Use only good quality / compatible materials and follow the manufacturers' recommendations for use, even if at variance with this system.

Note \*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v9 Clause SW4.20 for further information.)

#### Finishing System

2 coats of Dulux Trade Weathershield Exterior Flexible Undercoat of selected shade.

1 coat of Dulux Trade Weathershield Exterior High Gloss of selected shade.

For further guidance contact AkzoNobel Decorative Paints UK Technical Advice Centre on 03332 227070.

or

Medite SmartPly

Website: [www.mdfosb.com](http://www.mdfosb.com)

© Copyright and Database Right 1998 to 2020 Imperial Chemical Industries Limited (t/a ICI Paints AkzoNobel)

System Code	D4110 MTE Dulux Trade Weathershield Quick Dry Exterior Gloss
Building Part	Fascia, Soffits, Eaves, Barge Boards, Cladding, Surrounds, Doors, Facing, Screens, etc.

Surface Substrate	Wood – Medite Tricoya Extreme (MTX)
Previous Coating	None / New
Surface Condition	Good (New Uncoated)
Durability Performance	High
Finish Type	Water Based
Sheen	High (Gloss)
Brand	Dulux

Required Finish Coat	Dulux Trade Weathershield Quick Dry Exterior Gloss
Data Sheet Number	534

- Comply at all times with BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended).
- Imperial Chemical Industries Limited (t/a ICI Paints AkzoNobel) will not accept responsibility for any unauthorised amendments or usage of the wording contained in this System sheet and in Paint's Site Work Instructions v8.
- In order to achieve the optimum results, it is extremely important to adhere to the systems and Imperial Chemical Industries Limited (t/a ICI Paints AkzoNobel) Site Work Instructions v9 quoted.
- Products supplied for the carrying out of this specification are compliant with Statutory Instrument 2005 No. 2773 (Environmental Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005.

#### Preparation

Thoroughly clean down to ensure all areas are free from dirt, grease and surface contaminants.

Remove oils from surface by wiping with a sharp solvent.

Round all sharp edges (a radius of 1mm to 2mm for timber other than sills and thresholds; 3mm for sills and thresholds) and \*dust off.

Note: When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v9 Clause SW4.20 for further information).

#### Priming

MTX may contain acetic acid which will corrode ferrous metal fixings.

All metal fixings should be stainless steel., galvanized, plated, sheradised or similar.

LIBERALLY APPLY 2 coats of Dulux Trade Weathershield Preservative Primer + (BP) overall.

\*Caution

Weathershield Preservative Primer +(BP) contains: 3-iodo-2-propynyl-n-butyl carbamate and propiconazole. Use Biocides safely.

Always read the label and product information before use.

#### Edges

Seal exposed edges with Sikkens Kodrin WV456. Apply to saturation using a small stiff brush or small filling knife.

Allow to become transparent before overcoating (typically 2 hours).

Note: Failure to ensure sealers are not fully dry before overcoating may cause subsequent coats to crack.

On Medite Tricoya Extreme it would be beneficial to apply two coats of end grain sealer Sikkens Kodrin WV456.

#### Making Good

Make good all cracks, nail-holes, open joints and other imperfections with Dulux Trade Weathershield Exterior Flexible Filler.

When set carefully rub down and \*dust off.

Fillers, Stoppers and Glazing Compounds

Use only good quality / compatible materials and follow the manufacturers' recommendations for use, even if at variance with this system.

Note \*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v9 Clause SW4.20 for further information.)

#### Finishing System

1 coat of Sikkens Cetol BL Primer.

1 coat of Dulux Trade Weathershield Quick Dry Exterior Undercoat of selected shade.

2 coats of Dulux Trade Weathershield Quick Dry Exterior Gloss of selected shade.

For further guidance contact AkzoNobel Decorative Paints UK Technical Advice Centre on 03332 227070.

or

Meditate SmartPly

Website: [www.mdfosb.com](http://www.mdfosb.com)

© Copyright and Database Right 1998 to 2020 Imperial Chemical Industries Limited (t/a ICI Paints AkzoNobel)

System Code	D4043 MTE Dulux Trade Weathershield Quick Dry Exterior Satin
Building Part	Fascia, Soffits, Eaves, Barge Boards, Cladding, Surrounds, Doors, Facing, Screens, etc.

Surface Substrate	Wood – Medite Tricoya Extreme (MTX)
Previous Coating	None / New
Surface Condition	Good (New Uncoated)
Durability Performance	High
Finish Type	Water Based
Sheen	Mid (Satin / Silk)
Brand	Dulux

Required Finish Coat	Dulux Trade Weathershield Quick Dry Exterior Satin
Data Sheet Number	428

- Comply at all times with BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended).
- Imperial Chemical Industries Limited (t/a ICI Paints AkzoNobel) will not accept responsibility for any unauthorised amendments or usage of the wording contained in this System sheet and in Paint's Site Work Instructions v8.
- In order to achieve the optimum results, it is extremely important to adhere to the systems and Imperial Chemical Industries Limited (t/a ICI Paints AkzoNobel) Site Work Instructions v9 quoted.
- Products supplied for the carrying out of this specification are compliant with Statutory Instrument 2005 No. 2773 (Environmental Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005.

#### Preparation

Thoroughly clean down to ensure all areas are free from dirt, grease and surface contaminants.  
 Remove oils from surface by wiping with a sharp solvent.  
 Round all sharp edges (a radius of 1mm to 2mm for timber other than sills and thresholds; 3mm for sills and thresholds) and \*dust off.  
 Note: When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.  
 (See AkzoNobel Decorative Paints UK Site Work Instructions v8 Clause SW4.20 for further information).

#### Priming

MTX may contain acetic acid which will corrode ferrous metal fixings.  
 All metal fixings should be stainless steel, galvanized, plated, sheradised or similar.  
 Spot prime any bare metal, metal fixings, nail heads etc with: 1 coat of Dulux Trade Metalshield Quick Dry Metal Primer.

LIBERALLY APPLY 2 coats of Dulux Trade Weathershield Preservative Primer + (BP) overall.

#### \*Caution

Weathershield Preservative Primer +(BP) contains: 3-iodo-2-propynyl-n-butyl carbamate and propiconazole. Use Biocides safely.  
 Always read the label and product information before use.

#### Edges

Seal exposed edges with Sikkens Kodrin WV456. Apply to saturation using a small stiff brush or small filling knife.  
 Allow to become transparent before overcoating (typically 2 hours).  
 Note: Failure to ensure sealers are not fully dry before overcoating may cause subsequent coats to crack.  
 On Medite Tricoya Extreme it would be beneficial to apply two coats of end grain sealer Sikkens Kodrin WV456.

#### Making Good

Make good all cracks, nail-holes, open joints and other imperfections with Dulux Trade Weathershield Exterior Flexible Filler.  
 When set carefully rub down and \*dust off.  
 Fillers, Stoppers and Glazing Compounds  
 Use only good quality / compatible materials and follow the manufacturers' recommendations for use, even if at variance with this system.  
 Note \*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.  
 (See AkzoNobel Decorative Paints UK Site Work Instructions v9 Clause SW4.20 for further information.)



#### Finishing System

1 coat of Sikkens Cetol BL Primer.

1 coat of Dulux Trade Weathershield Quick Dry Exterior Undercoat of selected shade.

2 coats of Dulux Trade Weathershield Quick Dry Exterior Satin of selected shade.

For further guidance contact AkzoNobel Decorative Paints UK Technical Advice Centre on 03332 227070.

or

Medite SmartPly

Website: [www.mdfosb.com](http://www.mdfosb.com)