

General demands for finishing Accoya or Medite Tricoya Extreme (MTX).

Introduction; This leaflet, presents two general PPG opaque paint systems for Accoya or Medite Tricoya Extreme (MTX) and its process demands. More tailor made process conditions can be worked out in detail, by EIC in corporation with the applicator. Because product and process makes the overall performance, together with the applicator EIC can also work out instructions for the preparation area, flow coat area (if available), spray area and after finished area. The general PPG opaque wood coating systems for Accoya and Medite Tricoya Extreme (MTX), as described in the tables below, are based on specific process demands which have to be respected. All PPG products have to be applied according to the actual PPG Technical Data Sheets (TDS's) of PPG.

Option 1; Opaque PPG finish for Medite Accoya & Tricoya Extreme (MTX)

First layer; Basecoat: PPG FE 121QT, a clear low viscosity substrate conditioner for Flowcoating.

PROCESS PARAMETER	Required value	Tolerance
Material properties/ viscosity	See technical datasheet	Dilute with 10% - 20% water
Solid contents (undiluted)	See technical datasheet	± 1 %
Flash-off (no ventilation)	15°C and 60-80% humidity	During 10-15 min
Temperature in the dryer (ventilated)	>18°C, airspeed 0,2 m/s	Not less than 15 °C
Drying time at 18 °C	6 hours	Not less than 4 hours

After drying of the Basecoat, all visible end grains should be sealed with PPG End Grain Sealer.

Second layer; Midcoat: PPG PE 627QO in the same colour as the final finish.

PROCESS PARAMETER	Required value	Tolerance
Material properties/ viscosity	See technical datasheet	Ready for use
Solid contents	See technical datasheet	± 1 %
Wet film thickness	150-200 µm	
Flash-off (no ventilation)	15°C and 60-80% humidity	During 10-15 min
Temperature in the dryer (ventilated)	>18°C, airspeed 0,2 m/s	Not less than 15 °C
Drying time at 18 °C	6 hours	Not less than 5 hours

After applying the Midcoat, the elements/panels have to be smoothly sanded or de-nibbled.

Final Layer; Topcoat: PPG TE 112QO Satin tinted on demand.

PROCESS PARAMETER	Required value	Tolerance
Material properties/ viscosity	See technical datasheet	Ready for use
Solid contents	See technical datasheet	± 1 %
Wet film thickness	150-200 µm	
Flash-off (no ventilation)	15°C and 60-80% humidity	During 10-15 min
Temperature in the dryer (ventilated)	>18°C, airspeed 0,2 m/s	Not less than 15 °C
Drying time at 18 °C	6 hours before handling	Not less than 5 hours
Through drying of complete system	Indoor at 15°C for 72 hours	Not less than 60 hours

The minimum total dry film thickness of the complete paint system should be > 140 micron.

Option 2; Opaque PPG finish for Accoya & Medite Tricoya Extreme (MTX)

First layer; Basecoat: PPG FE 121QT, a clear low viscosity substrate conditioner for Flowcoating.

PROCESS PARAMETER	Required value	Tolerance
Material properties/ viscosity	See technical datasheet	Dilute with 10% - 20% water
Solid contents (undiluted)	See technical datasheet	± 1 %
Flash-off (no ventilation)	15°C and 60-80% humidity	During 10-15 min
Temperature in the dryer (ventilated)	>18°C, airspeed 0,2 m/s	Not less than 15 °C
Drying time at 18 °C	6 hours	Not less than 4 hours

After drying of the Basecoat, all visible end grains should be sealed with PPG End Grain Sealer.

Second layer; Midcoat: PPG TE 112QO Satin in the same colour as the final finish.

PROCESS PARAMETER	Required value	Tolerance
Material properties/ viscosity	See technical datasheet	Ready for use
Solid contents	See technical datasheet	± 1 %
Wet film thickness	150-200 µm	
Flash-off (no ventilation)	15°C and 60-80% humidity	During 10-15 min
Temperature in the dryer (ventilated)	>18°C, airspeed 0,2 m/s	Not less than 15 °C
Drying time at 18 °C	6 hours	Not less than 5 hours

When the Midcoat is dry, the elements/panels/claddings have to be smoothly sanded or de-nibbled.

Final Layer; Topcoat: PPG TE 112QO Satin tinted on demand.

PROCESS PARAMETER	Required value	Tolerance
Material properties/ viscosity	See technical datasheet	Ready for use
Solid contents	See technical datasheet	± 1 %
Wet film thickness	150-200 µm	
Flash-off (no ventilation)	15°C and 60-80% humidity	During 10-15 min
Temperature in the dryer (ventilated)	>18°C, airspeed 0,2 m/s	Not less than 15 °C
Drying time at 18 °C	6 hours before handling	Not less than 5 hours
Through drying of complete system	Indoor at 15°C for 72 hours	Not less than 60 hours

The minimum total dry film thickness of the complete paint system should be > 140 micron.

Option 3; Opaque PPG finish for Medite Accoya & Tricoya Extreme (MTX)

Basecoat; First layer based on PPG PE 627QO, applied by spraying.

PROCESS PARAMETER	Required value	Tolerance
Material properties/ viscosity	See technical datasheet	Ready for use
Solid contents	See technical datasheet	± 1 %
Wet film thickness	150-200 µm	
Flash-off (no ventilation)	15°C and 60-80% humidity	During 10-15 min
Temperature in the dryer (ventilated)	>18°C, airspeed 0,2 m/s	Not less than 15 °C
Drying time at 18 °C	6 hours	Not less than 5 hours

After drying of this Basecoat, all visible end grains should be sealed with PPG End Grain Sealer.

Second layer; Midcoat: PPG PE 627QO in the same colour as the final finish.

PROCESS PARAMETER	Required value	Tolerance
Material properties/ viscosity	See technical datasheet	Ready for use
Solid contents	See technical datasheet	± 1 %
Wet film thickness	150-200 µm	
Flash-off (no ventilation)	15°C and 60-80% humidity	During 10-15 min
Temperature in the dryer (ventilated)	>18°C, airspeed 0,2 m/s	Not less than 15 °C
Drying time at 18 °C	6 hours	Not less than 5 hours

After applying the Midcoat, the elements/panels have to be smoothly sanded or de-nibbled.

Final Layer; Topcoat: PPG TE 112QO Satin tinted on demand.

PROCESS PARAMETER	Required value	Tolerance
Material properties/ viscosity	See technical datasheet	Ready for use
Solid contents	See technical datasheet	± 1 %
Wet film thickness	150-200 µm	
Flash-off (no ventilation)	15°C and 60-80% humidity	During 10-15 min
Temperature in the dryer (ventilated)	>18°C, airspeed 0,2 m/s	Not less than 15 °C
Drying time at 18 °C	6 hours before handling	Not less than 5 hours
Through drying of complete system	Indoor at 15°C for 72 hours	Not less than 60 hours

The minimum total dry film thickness of the complete paint system should be > 140 micron.

Substrate & construction demands;

The required protection level of timber (frames, doors, claddings, trims etc.) is obtained by a professional paint and application process, however we know that product and process makes the overall performance, so there is more to it than just paint. The durability and quality of elements also depends on the following factors:

1. Quality of the coated substrate.
2. Design, construction, installation and maintenance of the coated substrate.

1 Quality of the coated substrate;

Accoya is produced by Accsys Technology in The Netherlands and can be used for exterior exposed Windows, Doors, Sashes etc. All instructions and guidelines from Accsys Technology, how to handle and install the Accoya substrate, should be respected at any time. The guidelines and other supporting information sheets are all available on the download section of the website www.accoya.com.

Tricoya Extreme (MTX) is produced by Medite in Ireland and can be used for exterior exposed panels, claddings, facades etc. All instructions and guidelines from Medite, how to handle and install the MTX substrate should be respected at any time. The guidelines and other supporting information sheets are all available on the download section of the website www.mdfosb.com

The moisture contents of Accoya & Tricoya Extreme (MTX) must be $6\% \pm 3\%$ during production, application, handling & installation. The Accoya or MTX substrate needs to be free of microorganisms, such as insects, fungi, blue stain, mould or bacteria.

2. Design, construction, installation and maintenance of the coated substrate;

The construction of Accoya and/or Tricoya Extreme (MTX) doors, frames, panels, claddings etc. shall be compliant with the widely used construction methods. End grains have to be smoothly finished and protected with at least one extra layer of PPG End Grain Sealer or one extra layer of FE 121QT, in order to block extreme water uptake at head ends, with a minimum of 4 hours drying at 18°C before refinishing.

All sightseeing edges of the Accoya and/or Medite Tricoya Extreme (MTX) substrates/elements, which are going to be exposed to all weather conditions, need to have a radius of at least 2 -3 mm.

Bare Accoya end grains and Medite Tricoya Extreme (MTX) sides, which are going to be exposed to all weather conditions, should always be properly covered and sealed with FE 121QT and/or PPG End Grain Sealer, before applying the Midcoat and Topcoat.

Every construction of Accoya or Medite Tricoya Extreme (MTX), has to be drained and vented where necessary. Failures can result in moisture ingress at risky areas, which can have a negative effect on the performance of the PPG paint system.

Finished Accoya or Medite Tricoya Extreme (MTX), should never have permanent ground contact, as this can have a negative effect on the performance of the PPG paint system.

Avoid horizontal surfaces where rain/water can be trapped, be sure that water sheds from the finished substrate readily by a proper design, in an angle of 10 to 12°C.

Possible joints must have a perfect fit and be tightly glued with a suitable adhesive for Accoya and Medite Tricoya Extreme (MTX), conforming to the minimum specification of the BS, like SLS 0819 from Frencken (Soudal). Adhesive must be applied at all parts of joints, to avoid possible gaps or capillaries where moisture ingress can occur. It is essential to use adhesives and sealants which are durable, have good gap filling qualities and are compatible with the PPG Paint system and are sufficiently flexible to cope with the natural movement and characteristics of the substrate.

Use stainless steel nails, screws or Inox hardware, to avoid corrosion and always create an effective paint barrier between the hardware and bare Accoya or Medite Tricoya Extreme (MTX).

Site Care

The finished Accoya or Medite Tricoya Extreme (MTX) elements have to be stored indoor for at least 60 hours after the final coating application, at a temperature > 15°C, before they are exposed to external weather conditions. The elements can only be exposed outside, after they have gone through the complete drying process.

The coated elements shall not be in direct contact with each other, so to avoid blocking use a proper foil. Wrapping the elements completely in a thermally welded PE plastic foil, can be risky, as it is important that there always is a way out for trapped water/rain.

Sometimes special painting tapes are temporary used on top of the finished Accoya or Medite Tricoya Extreme (MTX) elements by a decorator, these tapes have to be removed immediately after the completion of the work, to reduce the risk of damaging the PPG Paint System.

An indoor air humidity above 80% may result in damage of the coated substrate, in such a situation an intensive ventilation and heating is required to drop the humidity. An indoor air humidity can go up, because of plastering, a missing or leaking roof, or the fact that a cement floor has just been applied and isn't dry yet.

We strongly recommend to clean the coated substrate twice per year with water and mild detergents with a neutral PH level, in order to remove dust, insect dirt and other contamination that may promote the growth of algae or fungi.

If any damage to the PPG paint system appears, it should be repaired immediately, following the instructions below;

1. Damaged areas have to be carefully cleaned with water and mild detergents (neutral PH level) to begin with and then smoothed with fine sanding paper.

After removing the sanding dust, the damaged spots shall be carefully repainted manually with two layers of slightly diluted (approx. 5% water) TE 112QO Satin, in the existing colour.

If the paint system has been damaged completely, the bare substrate has to be manually repainted first with one layer of FE 121QT (substrate conditioner), before finishing it at least twice manually with slightly diluted (approx. 5% water) TE 112QO, in the existing colour.

2. In case of deep scratches, throughout the PPG coating film, the damaged spots shall be smoothed with sanding paper and repainted manually first with one layer of FE 121QT (conditioner).

If necessary, the scratch can be filled with an exterior 2K epoxy filler.

After sanding the repaired spot, the damaged and repaired spots have to be repainted at least twice manually with slightly diluted (approx. 5% water) TE 112QO, in the existing colour.

Finally some General notes; To begin with check the moisture content of the Accoya or Medite Tricoya Extreme (MTX) substrate, as it has to be < 10%, before finishing. On site, the finished substrates/elements should not be painted at a substrate or air temperature below 10°C, or if the local air humidity is above 80%. Always use the right brush and roller, suitable for the application of waterborne products, so you are able to apply a wet film thickness of approximately 80 microns at each layer.