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Inspection guide

The following information provides an overview of the application of brushed translucent finishes to Accoya manufactured joinery items such as windows, doors and conservatories. It has been designed to help manufacturers and painting professionals adopt good working practices in their manufacturing, coating and maintenance process; ensuring service life is maximised. This information must be used in conjunction with the relevant coating specification and product technical data sheets. It is intended for professional use only.

KEY CONSIDERATIONS

DESIGN

- Cills and non-vertical surfaces must show efficient water shedding characteristics with a slope angle of no less than 9°.
- Surface tension causes wet paint to flow away from sharp edges leaving them relatively unprotected. A minimum external radius of no less than 3mm is required to avoid thinning of the coating system in accordance with British Standard 644.
- Interior edges should be rounded to at least 1.5mm radius.
- The design must preclude obvious water traps. Any gaps or recesses in the joinery should be sufficiently wide to prevent capillary draw of water into holding areas. We typically recommend a 3mm gap.
- Fixing pins, particularly on horizontal glazing beads, must not allow the ingress of water. If pins are punched below the surface, filling must be carried out to ensure that a water collecting hollow is not produced. Secondary filling may

be necessary to account for shrinkage. The fine surface filler is not recommended for filling fixing holes.

- Fixing pin type should be stainless steel
- As a minimum, the construction guidelines set out in BS 644 should be followed at all times.

TIMBER QUALITY

Accoya is a chemically modified softwood with excellent stability in damp climates

Outdoor testing has shown the modification processes alone will not improve the timber's resistance to surface mould growth. To attain optimum joinery performance, a surface applied preservative is recommended.

Accoya readily accepts translucent coating systems where its inherent stability can extend coating life. Exposed end grain should be sealed with two coats of end grain sealer to minimise moisture ingress.

MOISTURE CONTENT

Moisture content of the timber at the time of coating should typically be <8% on Accoya wood. Readings above 10% suggests free water is present in the substrate which could result in impeding the curing of the coating system.

SANDING (FACTORY FINISHING)

- Sanding is commonly used for small scale, purpose-made, joinery and finishing results can be greatly improved by limiting sanding and denibbing processes, and selecting the appropriate grade of abrasive paper.
- This is very important where automatic drum sanders are used. The grit of the belt on the first drum should be as fine as possible to prevent the substrate being ripped open, ideally 120, with subsequent belt grades coordinated to close the surface and the finishing belt 220 or 240 grit.

FILLER

- Any significant defect should be filled using a two component filler suitable for use with wooden components prior to the application of the coating system.
- The filling of defects can be difficult when using translucent finishes. It is important to ensure the colour of any filler used is as close as possible to the colour of the base coated timber and not the original timber colour
- Some hard wax fillers are suitable for use with Teknos products although we do not recommend the use of soft wax fillers on external joinery due to the extremes of temperature that can occur.



ENVIRONMENTAL & STORAGE CONDITIONS

- All coating products must be kept away from frost and cold draughts, and they should ideally be stored at a constant temperature above 10°C. Containers should never be stored on the floors, which can become very cold in winter.
- Do not apply in extreme temperatures. The most suitable temperature range is between 10°C and 20°C. Humid conditions will prolong the 'wet edge' time of the coating and warm windy conditions will reduce it. When possible avoid application in direct sunlight.
- When painting, surface temperatures must be at least 3°C above the dew point to prevent moisture condensation during the drying process

PRE-PAINTING TREATMENTS

END GRAIN SEALER

After applying WOODDEX AQUA BASE PLUS clear and AQUAPRIMER 2900, any exposed end grain on the treated timber components (including machined apertures) must be sealed. End grain sealer is supplied ready to use and should not be thinned. Re-seal containers after use to prevent evaporation and skinning.

APPLICATION




In order to achieve optimum performance two generous brush coats must be applied to all areas of exposed end grain. For areas of severe exposure (e.g. coastal locations) application of an additional coat is recommended. Vulnerable areas such as doors, stiles, projecting cills and cut glazing beads require special attention.

DRYING TIME @ 23°C/50% RH

- Touch dry after 30 minutes
- Recoatable after one to two hours



PAINT PRODUCTS

PRESERVATIVE		
WOODDEX AQUA BASE PLUS	Waterborne wood preservative that protects against damage and discolouration from wood fungi.	
BASE STAIN PRIMER		
AQUAPRIMER 2900	Translucent waterborne industrial primer for new wood designated for exterior use such as windows and doors.	
TOPCOATS		
HELO AQUA 20/40/90	A water-based tinted translucent topcoat, which enhances the natural beauty of timber.	

BRUSH APPLICATION GUIDE

The brush application of waterborne materials requires different techniques, due to the shorter drying times of waterborne coatings.

Most of the application principles which apply to waterborne materials also apply to solvent borne coatings, but the application tolerance of waterborne coatings is lower and they are less forgiving of abuse. However, the benefits of very low solvent levels, rapid drying and good durability, due to the flexibility of the dry coating, far outweigh the application differences which are easily overcome by experience and following a few simple steps.

Use a good quality long haired synthetic brush; a short haired or worn brush may leave lines in the dry coating film. Prior to application thoroughly wet the brush with water, ensuring that the base of the bristles (the heel of the brush) is fully wetted.

A variety of brushes are now readily available which are specifically made for the application of waterborne coatings. The bristles are generally manufactured from synthetic materials.

STEP BY STEP

For the best results a three stage application technique should be developed:

1. Load the coating generously onto the substrate and disperse over the surface, apply and finish each length section systematically
2. Even out the coating with light diagonal cross strokes - DO NOT OVERBRUSH - the coating will flow and level naturally.
3. Finish the application with light brush strokes in the direction of the grain.

With practice an even coat can be applied quickly. An even coating film is important for durability and also for

appearance, particularly in the case of translucent wood stain.

Do not apply in extremes of temperature. The most suitable temperature range is between 10°C and 20°C. Humid conditions will prolong the "wet edge" time of the coating and warm windy conditions will reduce it. When possible avoid application in direct sunlight.

EQUIPMENT CLEANING

Application equipment can normally be cleaned using cold water. Under certain circumstances it may be advantageous to use warm soapy water. Please refer to our brushing information sheet.



PAINT APPLICATION

This section describes a typical coating sequence and should be read in conjunction with your specification. Additional information sheets are available, covering issues such as drying parameters, treatment of end grain, site care and storage, surface preparation, and joinery design and installation.



TOP TIP: Optimal paint temperature is 15°C - 23°C. So, 2-3 days prior to painting, take the tin out of storage (the cold garage) and keep it in a warm room somewhere in the home. (See 'Exterior Wood maintenance brushing guide - Accoya & Tricoya' for more information)

LAYER 1 - PRESERVATIVE	
PRODUCT	Woodex Aqua Base Plus Clear
PRODUCT PREPERATION	All products are supplied ready for use, stir thoroughly before application.
APPLICATION DRYING TIME (@ 23°C/50%RH)	Using a good quality long haired synthetic brush; apply a good even coat of preservative to all surfaces, in line with Teknos data sheet guidelines and specification. Dust free after 1-2 hours dry to handle and ready for top coating after approximately 24 hours.
LAYER 2 - BASE STAIN PRIMER	
PRODUCT	AQUAPRIMER 2900
PRODUCT PREPERATION	All products are supplied ready for use, stir thoroughly before application.
APPLICATION DRYING TIME (@ 23°C/50%RH)	Using a good quality long haired synthetic brush; apply a good even coat in the correct colour shade, to all surfaces, in line with Teknos data sheet guidelines and specification. Touch dry after 1 hour. Re-coatable after 2-3 hours.
V-JOINTS	Apply a continuous bead of Teknos V JOINT mastic to the width of the joint and smooth with a damp sponge, cloth or squeegee, to ensure good penetration and levelling in the joint. Alternatively, apply an adhesive generously to all surfaces to be bonded, using light pressure to form the joints and excess adhesive to seal any exposed end grain and construction joint. This can also be used to cap all lower internal joints in mid and bottom rail rebates.

Apply end grain sealer to exposed end grains and machined apertures

LAYER 3 - TOPCOAT	
PRODUCT	HELO AQUA 20/40/80 - Teknos do not recommend colourless coatings for exterior use.
PRODUCT PREPARATION	All products are supplied ready for use but in warmer conditions up to 10% water may be added to increase the wet edge time on the brush.
APPLICATION DRYING TIME (@ 23°C/50%RH)	Use a good quality long haired synthetic brush; apply an even coat of top coat in the correct colour shade to all surfaces. The wet film thickness should be between 50 and 75µm. Touch dry after 1 hour. Recoatable after 3-4 hours.
DENIBBING	Denib all surfaces to remove any raised fibres using a fine grade abrasive between 180 and 220 grit. Nylon and foam filled denibbing pads are very useful for denibbing, particularly on mouldings and profiled sections. The fine grit efficiently removes protruding fibres while discouraging over sanding and the removal of coating from edges. Check all surfaces for any defects. Ensure all residual dust is removed from the surface of the joinery items.
LAYER 4 - TOPCOAT	
PRODUCT	HELO AQUA 20/40/80 - Teknos do not recommend colourless coatings for exterior use.
PRODUCT PREPARATION	All products are supplied ready for use but in warmer conditions up to 10% water may be added to increase the wet edge time on the brush.
APPLICATION DRYING TIME (23°C/50%RH)	Use a good quality long haired synthetic brush; apply an even coat of top coat in the correct colour shade to all surfaces. The wet film thickness should be between 50 and 75µm. Touch dry after 1 hour. Recoatable after 3-4 hours.
LAYER 5 - TOPCOAT	
PRODUCT	HELO AQUA 20/40/80 - Teknos do not recommend colourless coatings for exterior use.
PRODUCT PREPARATION	All products are supplied ready for use but in warmer conditions up to 10% water may be added to increase the wet edge time on the brush.
APPLICATION DRYING TIME (23°C/50%RH)	Using a good quality long haired synthetic brush; apply a good even coat to all surfaces, in line with Teknos data sheet guidelines and specification. The wet film thickness should be between 50 and 75µm. Touch dry after 1 hour. Please allow 2 days for through drying with final hardness achieved in 1 week.

TEKNOS, THE PERFECT COATINGS PARTNERSHIP FOR ACCOYA®

Teknos coated Accoya® has been tested and proven over many years and found to be one of the most effective coatings partnership for external joinery. Accoya® is ideal for windows, doors, cladding, decking and structural wood construction. Coating with Teknos paints not only gives a beautiful finish but also prolongs the service life of the timber and the coatings. Improved service life means reduced maintenance costs.