

**UPDATED VERSION TO FOLLOW ASAP**



**WATERBORNE COATINGS FOR INTERIORS**

## HYDROPLUS. WATERBORNE COATINGS FOR INTERIORS

An environment-friendly attitude is increasingly spreading, aiming at safeguarding the operators' and the end-users' health. For this reason, furniture is more and more being coated with products with the least emission of solvents, both during the painting stage and in the final slow stage of the drying, which usually occurs at home and liberates unpleasant odours. As furniture manufacturers use chipboard bases and MDF with low formaldehyde contents, painters will have to use products with minimum contents of harmful substances, so as to protect the environment.

Sayerlack is committed to this research. Hydroplus is the brand of the best waterborne coatings for interiors.

The appearance is critical in the coating of furniture and its accessories. The Hydroplus waterborne products result in finishes that cannot be differentiated from those obtained with solvent-based products, ensuring a mechanical and chemical resistance level comparable to that of polyurethane two-pack topcoats.

However, these results can only be reached by following some instructions that help the process obtain the best performance of the coatings.

The naturally variable nature of wood means that it must be carefully prepared prior to coating. The use of top-quality materials will also give the best results.

### ADVANTAGES OF WATERBORNE COATINGS

<b>ECONOMIC</b>	25% overspray reduction. Overspray recovery in automatic systems. Unlimited pot-life for one-pack products.
<b>ENVIRONMENTAL</b>	Emissions reduced by 95%. Non-toxic products conforming to EN 71.3 (Safety of toys). Improvement of the workplace.
<b>PERFORMANCE</b>	Excellent chemical resistance. Non-yellowing acrylic systems.
<b>PRACTICAL</b>	Ready-to-use products. Application equipment can be cleaned with water. Easy to use. No problems of flammability and thereby of storage.

### TECHNICAL PRECAUTIONS

Drying conditions must be controlled.  
Final hardness is reached in a longer time.  
"Dust free" time is longer.  
Sensitive to freeze and fungi/moulds.  
More care is required in application.

One-pack waterborne coatings have no pot-life problems like the conventional polyurethane solvent-based products.

They are simple and ready to use as the product can be recovered and used again provided it is poured in its original can and carefully sealed, thus avoiding a prolonged contact with air, or immediately reused after having recovered its viscosity by diluting with water.

If you need the top performance given by the addition of an isocyanate curing agent (kitchens, furniture for bars and discos, table surfaces..), you can use AH 1545 or AH 1550. This product chemically reacts as it happens with polyurethane products; however, thanks to its special composition, it is stable and mixable with waterborne products, thereby ensuring a pot-life of several hours, after which the residue material cannot be used anymore.

## GENERAL INSTRUCTIONS

**Veneer.** Special care must be taken during the veneer gluing step. To have good bonding in critical points, such as sharp edges or imperfect joints, it is necessary to use ureic or class B3 or higher glues, and these must be spread and pressed evenly on the panel.

**Sanding.** At the end of the preliminary steps and after the support settling period, the item is ready for sanding. This is carried out by sanding the bare wood with increasingly finer grain abrasive papers (such as 150 and 180), in order to limit the raising of wooden fibres caused by the water contained in the products.

The more accurate the support preparation, the better the performance of the coating product.

**Packaging.** Due to the quite high chemical resistance of waterborne topcoats for interiors, the packaging used by clients usually gives no problems; however, the best material for packaging is high-density foamed polyethylene, while PVC or pluriball are not recommended.

**Equipment cleaning.** After the equipment has been used, this must be washed with water to prevent dry residues. A deeper cleaning is carried out periodically using the special detergent for waterborne products XA 4060, leaving the equipment to soak for a few hours.

The same equipment should not be used for water and solvent-based coating systems.

**Application systems.** Hydroplus coatings can be applied by spray (conventional, airless, airmix, electrostatic), provided that the equipment is suitable for water contact.

Specific equipment for water-based coatings is required for electrostatic application. Below are some general indications for spray application.

Spraying systems	Nozzle Ø	Air pressure (bar)	Coating pressure (bar)
Cup	1.8 to 2.2* <sub>1</sub>	3 to 4	
Airmix	9 to 13* <sub>2</sub>	0 to 2	80 to 150
Airless	9 to 13* <sub>2</sub>		80 to 150

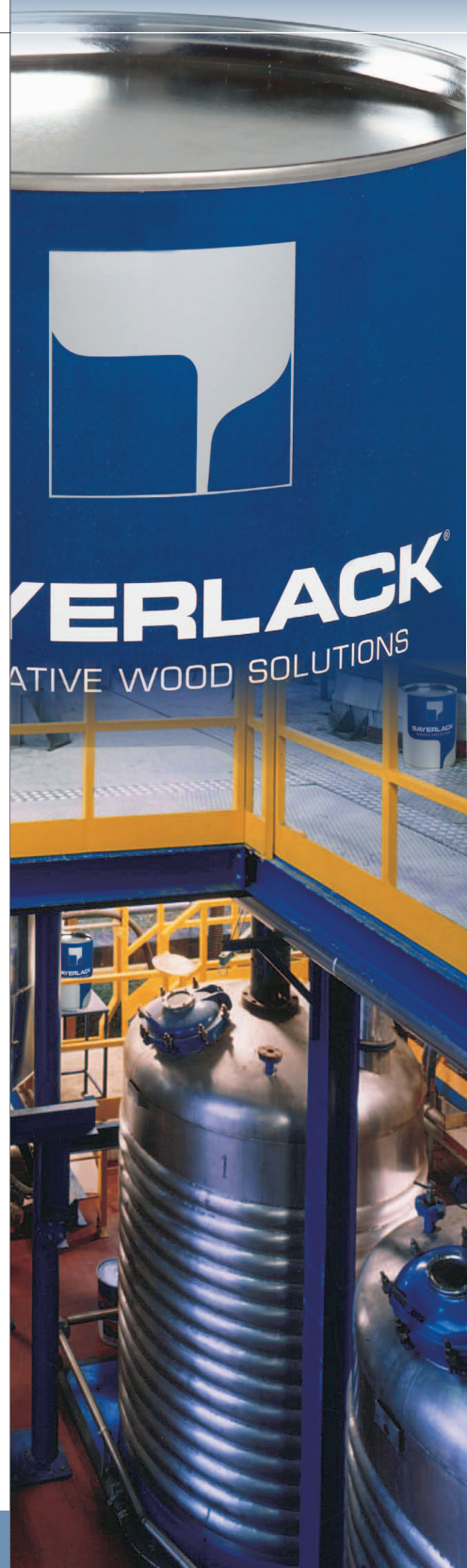
### Note

\*<sub>1</sub> For cup guns and airbrushes, the nozzle diameter Ø is usually measured in millimetres.

\*<sub>2</sub> The nozzle diameter for airmix and airless guns is usually measured in thousandths of inches.

**Why one-pack waterborne products?**

**Why two-pack waterborne products for interiors?**





## BINDER

The use of a binder may be required to improve some aspects of stains: quick drying, pore marking, evenness; or for specific use, dipping, roller application or antique stains.

Binder	Use	% of use referred to already thinned stain	Features	Specific for
AX 2004	Spray	0 ÷ 20	Slows down the drying. Improves the pore marking (not suited for AP 1221/XX).	Very marked pore
AP 1221	Spray	0 ÷ 100	Slows down the drying. Improves the pore marking. Reduces fibre swelling. Improves wiping.	Arte povera - wipe
XX 4130	Dipping	0 ÷ 20	Quick drying. Reduces fibre swelling. Reduces bleeding.	Dipping on beech
XA 4933/XX	Spray	80 ÷ 100	Isolates the tannin of the wood. Colours the wood like solvent-based products.	Tannin wood
XA 1327	Wipe	80 ÷ 100	Slows down the drying. Improves the pore marking, improves the wiping.	Arte povera - wipe
XA 4625	Roller machine	80 ÷ 100	Increases the viscosity of the stain and permits roller transfer.	Application in line
XA 4394	Spray	80 ÷ 100	Use to make antique stains. Easy to sand away.	Arte povera - decapé

### Bleeding

Many stains on the market and many substances present in several wood species are soluble in water. For this reason, they are responsible for an effect called "bleeding", which occurs when these substances dissolve into the coating. The bleeding effect sometimes is requested in order to improve the deepness and brightness of the stain, but more frequently it is a collateral effect with several negative consequences not completely under control when not suitable stains are used, like: remarked sagging, sweating of colour from the paint, if wetted, or, in some species of wood, greenish coloration or black spots from the pore. Therefore, it is recommended to use only stains and binders approved with waterborne products. All the stains and binders displayed in this brochure are approved for use with waterborne products.

## CROSS-LINKER

### XA 4080

The use of a cross-linker is not necessary, however, it is useful in particular:

#### In the basecoats

- To improve their sandability (with Scotch-Brite or un-spaced abrasive papers).
- To reduce thermo-plasticity and improve over-coating with solvent-based products.

#### In the topcoats

- To improve chemical and mechanical resistance.
- To accelerate stackability.

### XA 4095

Is specific for painting systems on glass with waterborne products.

### Waterborne Products on Glass

Almost all waterborne coatings with the addition of XA 4095 show good adhesion on glass. Anyway, the best results are obtained with AV 19\*\*/XX. This product is specific for application on glass, helping to obtain more homogeneous application and better adhesion.

# WATER-BASED COATING SYSTEMS FOR INTERIORS

<b>CLEAR OPEN PORE</b>		<b>System 1</b>
Sector: Flat parts in general, doors, profiles, baseboards. Application: Conventional spray gun, airmix.		
Stain 20÷30 g/m <sup>2</sup> Drying 1 hour	AC 1810	
Basecoat 80÷120 g/m <sup>2</sup> Drying 4 hours Automatic and manual sanding	AU 465 or AF 72**	
Topcoat 80÷120g/m <sup>2</sup> Stacking 16 hours	AF 54** or AF 72**	

<b>CLEAR FAST DRYING</b>		<b>System 2</b>
Sector: Flat parts in general, doors, profiles, baseboards. Application: Spray.		
Stain 20÷30 g/m <sup>2</sup> Drying 1 hour	AC 1810	
Basecoat 100÷120 g/m <sup>2</sup> Drying 4 hours Automatic and manual sanding	AF 74** or AF 54**	
Topcoat 100÷120 g/m <sup>2</sup> Stacking 16 hours	AF 74** or AF 54**	

<b>CLEAR SEMI-OPEN PORE</b>		<b>System 3</b>
Sector: Assembled furniture, doors, profiles, shutters. Application: Conventional spray gun, airmix.		
Stain 20÷30 g/m <sup>2</sup> Drying 1 hour	AC 1810	
Basecoat 80÷90 g/m <sup>2</sup> Drying 4 hours Automatic and manual sanding	AU 465 or AU 420	
Topcoat 80÷100 g/m <sup>2</sup> Stacking 16 hours	AF 72** or AF 88**	

<b>CLEAR SEMI-CLOSED PORE</b>		<b>System 4</b>
Sector: Assembled furniture, components for furniture. Application: Conventional spray gun, airmix.		
Stain 20÷30 g/m <sup>2</sup> Drying 1 hour	AC 1810	
Basecoat 80÷90 g/m <sup>2</sup> Drying 2 hours	AU 465 or AU 420	
Basecoat 100÷120 g/m <sup>2</sup> Drying 4 hours Manual sanding	AU 465 or AU 420	
Topcoat 100÷120 g/m <sup>2</sup> Stacking 24 hours	AT 99** or AF 88**	

<b>CLEAR FOR VERTICAL SURFACES</b>		<b>System 5</b>
Sector: Turned items, assembled furniture, chairs. Application: Spray with airmix, electrostatic suitable for waterborne products.		
Stain 20÷30 g/m <sup>2</sup> Drying 2 hours	AC 1810	
Basecoat 150÷170 g/m <sup>2</sup> Drying 4 hours Sanding	AU 420 or AT 71**	
Topcoat 120÷140 g/m <sup>2</sup> Drying 16 hours	AF 88** or AT 71**	

<b>CLEAR TWO-PACK</b>		<b>System 6</b>
Sector: Assembled furniture, doors, profiles, shutters. Application: Conventional spray gun, airmix.		
Stain 20÷30 g/m <sup>2</sup> Drying 1 hour	AC 1810	
Basecoat 120÷140 g/m <sup>2</sup> Drying 4 hours Automatic and manual sanding	AU 472 + 10% AH 1545	
Topcoat 120÷140 g/m <sup>2</sup> Stacking 16 hours	AT 48** + 10% AH 1545	

<b>WHITE PIGMENTED</b>		<b>System 7</b>
Sector: Components for MDF furniture. Application: Conventional spray gun, airmix, airless.		
Basecoat 120÷150 g/m <sup>2</sup> Drying 2 hours	AU 454/13 or AU 406/13	
Basecoat 150÷180 g/m <sup>2</sup> Drying 2 hours	AU 454/13 or AU 406/13	
Basecoat 150÷180 g/m <sup>2</sup> Drying 4 hours Automatic and manual sanding	AU 454/13 or AU 406/13	
Topcoat 100÷120 g/m <sup>2</sup> Stacking 16 hours	AT 99**/BB	

<b>PIGMENTED TWO-PACK</b>		<b>System 8</b>
Sector: Components for MDF furniture. Application: Conventional spray gun, airmix, airless.		
Basecoat 150÷180 g/m <sup>2</sup> Drying 2 hours	AU 472/13 + 4% AH 1545 or AU 474/13 + 2% AH 1545	
Basecoat 150÷180 g/m <sup>2</sup> Drying 4 hours Automatic and manual sanding	AU 472/13 + 4% AH 1545 or AU 474/13 + 2% AH 1545	
Topcoat 100÷120 g/m <sup>2</sup> Stacking 16 hours	AT 48**/13 + 8% AH 1545	

<b>COFFEEPROOF</b>		<b>System 9</b>
Sector: Flat parts, turned parts, picture frames, furniture, matchboards, wall panels. Application: Spray, airmix and low pressure systems.		
Basecoat 150÷180 g/m <sup>2</sup> Drying 2 hours	AU0474/13 + 2% AH 1545	
Basecoat 150÷180 g/m <sup>2</sup> Drying 4 hours Automatic and manual sanding	AU0474/13 + 2% AH 1545	
Topcoat 120 ÷140 g/m <sup>2</sup> Stacking 16 hours	AT6420/BB + 10% AH 1564	



## HYDROPLUS PRODUCTS FOR INTERIORS

### STAINS

#### AC 1810/XX

Harmonising stain, it can be covered with water-based coatings. Harmonising effect on uneven woods, can be diluted with water and alcohol. Available in the following colours: 07 golden yellow, 13 white, 14 bleu, 22 black, 26 bright red, 56 cherry, 76 wenge, 93 pale walnut, 94 medium walnut.

#### AC 2110/XX

It is suggested all the times pore-marking effect is required. It can be covered with both water-based and solvent-based coatings. Available in the following colours: 07 golden yellow, 13 white, 14 blue, 22 black, 26 bright red.

#### GLAZE AP 1221/XX

It guarantees maximum evenness on uneven woods. Thanks to its high solids content it fills the

pores and reduces the fibre more than a normal water-based stain. To apply, dilute with water 1:1. If the stain to reproduce is clear, you can use AP 1221/00 and dilute less. If over-coated with water-based products, it will not bleed. Available in the following colours: 00 clear, 07 golden yellow, 08 red, 09 orange, 22 black, 56 cherry, 76 wenge, 92 walnut, 95 dark walnut.

#### XA 4034/XX

These concentrated iron oxide pastes can be mixed together and in combination with several binders in order to obtain harmonised stains for spray, wipe and dipping application. Available in the following colours: 04 yellow (iron oxide), 08 oxide red (iron oxide), 52 ochre (iron oxide), 53 amaranth, 54 brick red (iron oxide), 57 ebony black, 65 brown (iron oxide), 72 black, 84 brenner walnut.

### BASECOATS

#### AU 465

It's a one-pack basecoat suitable for coating wooden items for interiors, exhibiting high sandability and build. Thanks to the excellent features of transparency and wettability of the wooden fibres, the use of basecoat AU 465 is recommended in all situations where the desired wood colour is similar to that obtainable with polyurethane basecoats.

#### AU 420

This is a one-pack basecoat suitable for coating wooden items for interiors, exhibiting a high transparency and build. Its thixotropic nature, together with good sanding properties, makes it suitable for coating all those items that require a high manual processing due to their complex structure, such as turned items and assembled furniture.

#### AU 454/13

It can be applied by spray directly on MDF or masonite substrates. It has a high pigment and solids content, resulting in even priming and

imparting an even colour.

#### AU 406/13

It is a one-pack basecoat that can be applied directly on MDF or masonite whit excellent property of filling and good sanding.

#### AU 472/XX

It is a two-pack basecoat suggested all the times high performance of building, sandability and strong chemical and physical resistance are requested to the coating process.

It is available both in the clear version (00) for the coating process and in the white one (13), that could work directly on MDF or masonite.

#### AU 474/XX

This two-pack basecoat can be applied by spray directly on MDF or masonite substrates. It has a very high pigment and solids contents. AU 474/XX can be used also as one-pack product and is available in both the white version (13) and the black one (22).

### SELF-SEALERS

#### AF 54\*\*

It is a matt self-sealer suitable for coating wooden items for interiors; it can be diluted with water and exhibits good hardness, transparency and good resistance to blocking. Thanks to its perfect outlining of the wood grain, it is especially suited for two-coat open pore systems. AF 54\*\* has excellent drying properties.

#### AF 72\*\*

It is a matt self-sealer suitable for coating wooden items for interiors; it exhibits excellent chemical resistance, hardness, transparency and resistance to blocking. The good thixotropy and hardness of AF 72\*\*, along with the excellent chemical resistance, allow the use of the product also on surfaces subject to wear. Its characteristics of fast drying and fast stackability, make it the first choice for a fast work.

#### AF 74\*\*

It is a matt self-sealer suitable for coating wooden items for interiors; its characteristics of fast drying and fast stackability, make it the first choice for a fast work.

#### AF 88\*\*

It is a one-pack clear matt self-sealer suitable for coating wooden items for interiors. Its thixotropic nature makes it suitable for coating complex structures such as turned items and assembled furniture. Its high hardness and good chemical resistance, along with a good softness, make it the perfect choice for high quality coating processes. For all these reasons AF 88\*\* is suggested to be used as a topcoat; the use as a self-sealer is recommended only for special purposes.



## TOPCOATS

### AT 99\*\*/XX

It is a one-pack matt/satin topcoat suitable for coating wooden items for interiors, exhibiting a high hardness and good chemical resistance. Formulated with non-yellowing polyurethane and acrylic resins, this topcoat maintains its colour over time and when the clear version is used keeps the wood colour unchanged. The good thixotropy and hardness, along with an exceptional even matting and softness, make the AT 99\*\*/XX a valid environment-friendly alternative for any requirements. Available both in the clear pigmentable version (NN) and in the white pigmentable one (BB). It is the converter used with our WOOD COLOR PLUS tintometric system, with waterborne tinting pastes. Different gloss levels are available.

### AT 71\*\*

It is a matt topcoat suitable for coating wooden items for interiors. Its thixotropic nature makes it suitable for coating chairs. For this application it can be used also as a self-sealer. Its excellent chemical resistance and hardness comply with the IOS-MAT-0066 requirements.

### AT 48\*\*/XX

It is a two-pack topcoat suggested all the times the coating process needs top chemical and physical resistance, excellent softness and covering. The aesthetical properties are at the same level of solvent-based topcoats. AT48\*\*/XX is available in the clear version (00) and in the white one (13), which can also be used as two-pack converter with our WOOD COLOR PLUS tintometric system with waterborne tinting pastes. Different gloss levels are available.

### AT 601

It is a two-pack clear topcoat designed to achieve deep matt and soft touch effect. Its resistance to nail marking and clearness make it perfect all the times a "natural look" is requested.

### AL 880/XX

It is a two-pack high gloss topcoat for interiors, characterised by excellent chemical resistance and smoothness, available both clear (00) and white (13), it can also be pigmented with tinting pastes.

### AT 6420/BB - COFFEEPROOF

It is a white two-pack topcoat capable of resisting coffee stains. This topcoat also guarantees excellent resistance to metal-marking, dry heat (up to 70° C) and writability, giving the coated surfaces a smooth feel. All these characteristics make CoffeeProof ideal for kitchen and living room furniture, moreover, CoffeeProof complies with the IOS-MAT-0066 requirements.

CoffeeProof can also be used as a two-pack converter with our WOOD COLOR PLUS tintometric system, using waterborne tinting pastes. CoffeeProof can be applied on previously sanded waterborne, polyurethane, and polyester basecoats or melamine paper substrates.



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