



 **SAYERLACK**[®]
INNOVATIVE WOOD SOLUTIONS

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HYDROPLUS WATERBORNE PRODUCTS FOR EXTERIORS

Durability has always been the primary criterion of exterior-grade wood coatings. With Hydroplus waterborne coatings, the life of coated wood joinery has considerably increased. These products are designed for the reduction of water absorption and protection from the sun's radiation and they ensure several advantages in terms of outdoor resistance and solvent emission reduction.

Durability of these products on outdoor exposure joinery is superior. Unlike solvent products, waterborne products maintain their elasticity over time, which allows the coating's film to follow the wood's movement without cracking or flaking. Hydroplus coatings are low environmental impact products: solvent **emissions are reduced by 95%** compared to synthetic products.

Waterborne coatings **are not flammable**, can be thinned with tap water, allow fast coating systems without spontaneous combustion and lifting.

All Hydroplus series products for exterior use meet the requirements of the EN 14351-1 regulation governing CE marking.



Advantages arising from the use of water-based in the manufacture of joinery for exteriors

- Low impact on the environment
- Not flammable
- Equipment can be washed with water
- Short drying time
- Durability on outdoor exposure
- Gloss retention
- Non-yellowing film
- Resistance to skin formation
- Maintains its elasticity on ageing
- Lifting resistance (over-coatability)
- No spontaneous combustion
- Topcoats high thixotropy

Hydroplus topcoats are thixotropic. This allows a thick coat of product to be applied without sagging or running, maintaining excellent flow and transparency. The applied film maintains a high level of elasticity over time, without being prone to "blocking" phenomenon. In order to ensure a good resistance in outdoor exposure, the clear Hydroplus products are formulated with an optimal dose of UV absorbers to block out UV rays that damage the exposed timber, reducing any changes in colour and protecting the wood from deterioration. Hydroplus pigmented coatings contain high opacity and light resistant pigments. This type of coating is ideal for high quality long lasting joinery products.

The most important precautions to be observed in the use of water-based coatings are:

1. During application, for both the product and for the substrate and for the environment, a minimum temperature of 15°C should be maintained. Films formed below such temperature exhibit lower mechanical and chemical resistance properties than the standard quality values.
2. Products must be stored in places with a minimum temperature of 5°C.



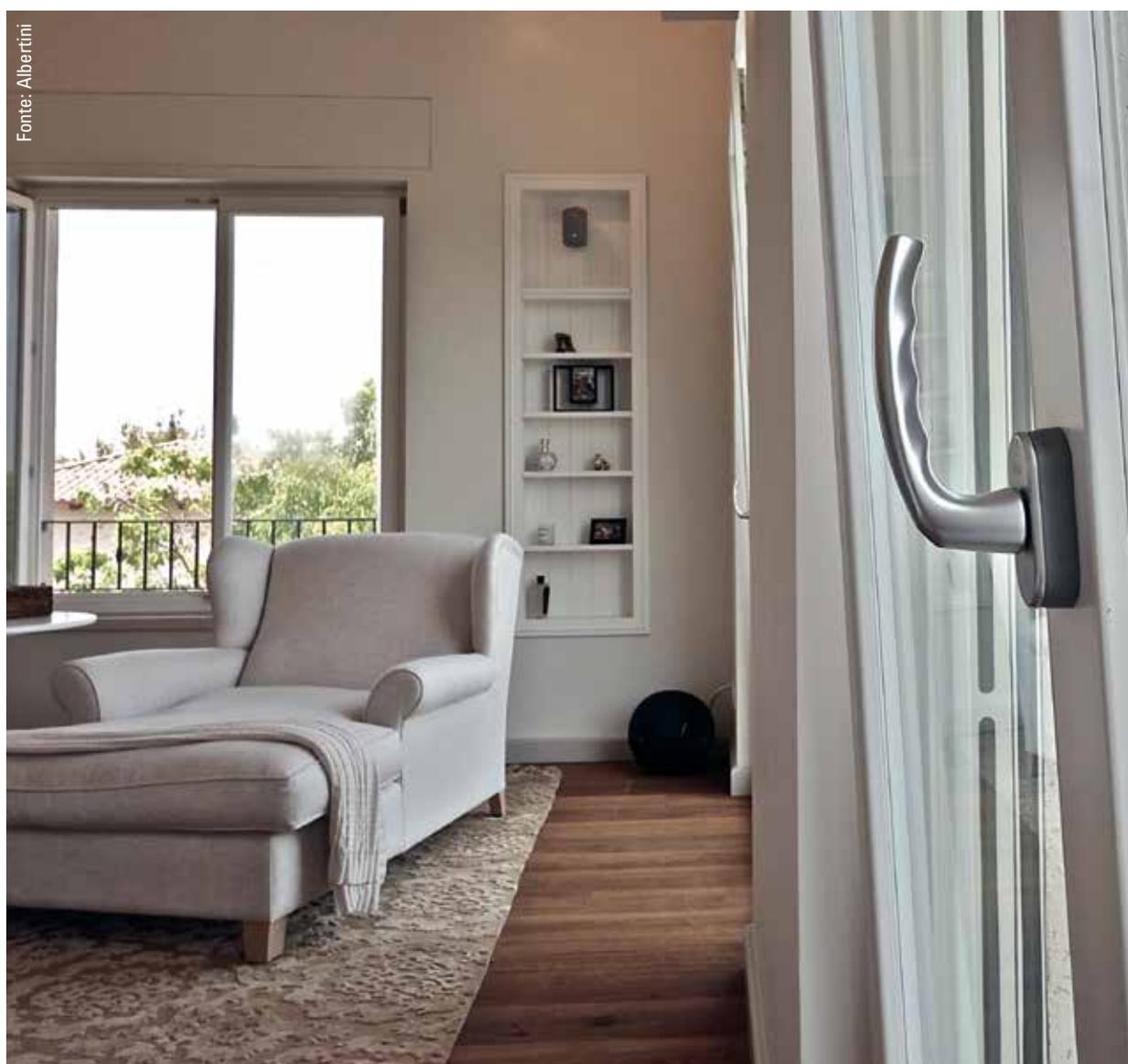
WOOD SELECTION

The wood must be healthy and without pith and must exhibit some important features.

- There must be no traces of **fungal** attack.
- There must be no traces of **insect** attack.
- There must be no transverse **cracking** of the grain.
- Sapwood can be present when it has features similar to those of heartwood (e.g. pine); it should not be present on woods where sapwood and heartwood have very different features.
- A maximum width of 5 mm is permitted for resin pockets which were originally present and have been replaced by timber inserts. The timber inserts should not be visible after coating (for pigmented systems) or may be visible if the insert is of the same colour as the timber (for translucent systems).

Danger of resin outflow pine, larch, douglas are rich in natural resin.

It is impossible to eliminate or block it by wood drying. Sooner or later, the heat of sun makes it exude. However, only the appearance is affected while protection of the timber remains unchanged. Always check the wood quality before use.



Fonte: Albertini

The edges must be rounded. The profiles must be inclined at 15° and technical solutions must be devised to minimise wood movement, water stagnation and absorption at joints or horizontal components.

SUBSTRATE PREPARATION

All preliminary mechanical processes on bare wood produce an irregular profile on the surface; to obtain a good coating result, a regular profile is required, and this can be obtained by sanding with increasingly finer abrasive paper, up to 150 for soft woods, up to 180 for hard woods.

The relative humidity of wood should range between 13% and 15%, according to the wood species.

Wood humidity should always be checked before coating, using a moisture meter.

Problems associated with the use of water-based coatings for various wood types

The most appropriate wood for exterior topcoats is fir.

Pine, larch and douglas cause resin outflow, especially close to the nodes, according to their origin, to the period the tree has been cut down, and the boards drying. For these reasons, even very highly isolating solvent-based products cannot ensure that resin will never come out, thereby forming yellow halos. This defect is very evident with white and much less visible with other colours.

Hemlock and meranti, woods traditionally suited for finishing, can suffer from coloured streaks due to their mineral salt and coloured water soluble extractives.

In the case of oak and chestnut, the outflow of tannin compounds (or extracts of various types) causes yellow spots on all or part (for example, only on the jamb) of the joinery. To finish woods like teak, Western red cedar, merbau, iroko, framiré, etc., we suggest contacting Sayerlack Technical Assistance for information and advice.



WOOD PROTECTION

Hydroplus protective wood stains penetrate deep into the wood, excluding water penetration and guarantee a long joinery life.

In pigmented systems, the protective wood stain absorbs UV rays, protecting the wood from early signs of aging, and highlights its natural beauty.

Sayerlack does not suggest using a clear protective wood stain to treat products destined for exterior use. A coat of protective wood stain is suggested for pigmented systems as well because improves the wood's ability to absorb products applied later on.

End grain protection

When coating exterior joinery, special care must be taken in the treatment of parts where wood is exposed by its end grain.

In fact, it is highly absorbent, thus reducing the thickness of the applied coating film, with a consequent lower protection, especially from water (humidity, fog, rain, etc.). Water absorption causes dimensional changes in the wood, which in the end grain zone produce tensions on the coating films, which could crack and lift from the substrate, with permanent damages to the woodwork.

To protect the end grain, apply with the proper dispenser XA 481, water-based resins sealer with elastic properties, or use XA 469 sealant for brush application or XAV 2216/NN elastic sealant for V-joint in cartridge pack, in order to close all open channels. This operation must be carried out after the protective wood stain is applied and dries.

WATER-BASED TOPCOATS APPLICATION

Hydroplus water-based coatings can be applied by the conventional coating systems (airless, airmix, electrostatic) provided that the equipment is suitable for water contact. Water-based coatings are also suitable to be used in coating systems where the sprayed material is recovered.

Before starting, always check that the tools you are using to apply the coating are in good condition. Equipment not in perfect working order (faulty gaskets, too high pressures) can produce considerable defects in the film (e.g. air blisters). The use of a pre-atomiser and/or of a pre-heater has given excellent results. The first one allows obtaining a better coating atomisation, even at lower pressures, reducing air incorporation and increasing the film transparency. The second one allows better film flow (especially in winter) and a higher topcoat quality as well as regular results at all times of the year. The pre-heated coating should be between 25°C and 35°C. The equipment must be washed immediately after use. If dry coating films are to be removed, use XA 4060, leaving it for 6-12 hours, then rinse with water. Do not use the same pump for applying water and solvent-based products.

General indications for the application of clear water-based products

Conventional	Nozzle 3 mm	Pressure 4 bar.
Airmix	Nozzle 11-13	Material pressure 90-140 bar. Air pressure 1-2 bar.
Airless	Nozzle 11-13	Material pressure 90-140 bar.

COATING THICKNESS

To achieve sufficient outdoor resistance, apply a minimum wet film thickness of 250 microns on the window and 300 microns on shutters. Heavier coats of topcoat should not be applied in a single coat since, especially in the accumulation zones (such as grooves of shaped panels), due to the fact that the film does not dry in a uniform manner, it might lead to cracking, splitting and/or peeling.

Coating thickness should always be checked by means of a thickness gauge

Iron oxides water-based pastes

The addition of the clear iron oxide pastes XA 4034/XX to the Hydroplus clear topcoats considerably extends the coating life. In fact, they absorb the ultraviolet component of the solar radiation, improving the protection of wood.

DRYING

The drying of water-based products must take place in rooms with a minimum temperature of 15°C and relative humidity preferably between 50% and 70%.

Outside these limits, the drying is slower and the film could exhibit lower hardness and chemical resistance. Drying should always take place in areas with forced air circulation, preferably dehumidified and slightly warm (25-35°C).

The coating application method (sprays, immersion, etc.) can influence the drying times and conditions.

PACKAGING MATERIALS

Foamed polystyrene, pluri-ball and PVC-based plastic materials are not suitable for packaging items coated with water-based products. In practice, foamed polyethylene has given excellent results. Given the large variety of materials on the market a preliminary test should always be performed.

GASKETS

PVC gaskets should not be used (also as support base for trolleys) since they release plasticizers and therefore soften and damage the coating film. Thermoplastic paste gaskets have shown better results. Given the large variety of materials on the market a preliminary test should always be performed.

SILICONES

Neutral crosslinking silicones have shown better adhesion on water-based coating films. Given the large variety of materials on the market a preliminary test should always be performed.



WATER RESISTANCE

Some water-based products can suffer surface defect, where the coating becomes white, if they come in contact with water in the first few days after they are applied. This phenomenon is reversible and disappears quickly.

Avoid the material coming into contact with water (ex. rain), especially during transit in/out of the facilities. This phenomenon is only observed when water has the chance to pool (ex. on joinery positioned horizontally).

Topcoats are also available that do not show this defect.

WATER-BASED TOPCOAT STORAGE

Once the can has been opened, water-based coatings can spoil due to bacteria, moulds and fungi commonly present in the air. This phenomenon is easily detected as it produces bad smells, increase of viscosity, mould on the surface and change of the colour of the product in the can.

Do not recover old products into fresh coating, nor leave open cans for longer periods, especially in summer.

Adding the bactericide XA 4051 extends the product preservability. Check the relative technical data sheet for the correct use.





COATING RESIDUES

Coating residues (wash water, booth water, exhaust coating) must be disposed of according to the regulations in force. Do not throw any residues in the sewers..

MATERIALS AND EQUIPMENT

Given the large variety of materials used for the manufacture of wooden products, when you pass from a solvent-based to a water-based coating system, you should always contact the Technical Service to check whether the components used are still suitable or there are more appropriate ones. To this purpose, check: electrostatic guns, pumps, gaskets, silicones, adhesives, booth water treatment products, packaging materials, etc.

NATURAL SYSTEMS

A natural look is increasingly in fashion. When customers want a colourless, natural look we recommend special coating processes using: AM 508/00, AM 610/00 and AZ 8130/00, specifically formulated with colourless UV absorber; to protect the wood from sunlight without staining it.

CATAS AND CATAS WKI CERTIFIED SYSTEMS: SUPERIOR QUALITY OF SAYERLACK WATER-BASED COATINGS FOR EXTERIORS

Through the continued search for excellence and in collaboration with external certification agencies, Sayerlack wood coatings have received important awards: CATAS QUALITY AWARD, CATAS QUALITY AWARD PLUS, CATAS WKI PREMIUM and CATAS WKI PREMIUM PLUS.

Four prestigious certifications that attests to the fact that Sayerlack coating systems have performed in the artificial accelerated aging tests.



- **CATAS QUALITY AWARD:** one-year of exposure in Italy. System with protective wood stain Hydroplus AM 546/XX and topcoat Hydroplus AZ 21**/XX.

- **CATAS QUALITY AWARD PLUS:** two-year exposure in Italy. System with protective wood stain Hydroplus AM 546/XX and topcoat Hydroplus AZ 21**/XX.



- **CATAS WKI PREMIUM:** one-year of exposure in Italy and Germany. System with protective wood stain Hydroplus AM 546/XX and topcoat Hydroplus AZ 21**/XX..

- **CATAS WKI PREMIUM PLUS:** two-year of exposure in Italy and Germany. System with protective wood stain Hydroplus AM 546/XX and topcoat Hydroplus AZ 21**/XX.

This followed strict European regulations to certify the coating system's quality in terms of its exterior durability and wood protection as well as the production quality controls during and after manufacture.

The waterborne system for joinery for exteriors CATAS QUALITY AWARD and CATAS WKI PREMIUM certified, is composed by protective wood stain Hydroplus AM 546/XX and by topcoat Hydroplus AZ 21**/XX. It's extended to the full range of colours of the protective wood stain AM 546/XX (with the exception of the colours /00 clear, /80 oak, /82 pine, /85 larch e /89 teak) and to the topcoat AZ 21**/XX, for wet thickness of 300 micron, for the colours /89 teak, /92 walnut, /93 light walnut and /95 dark walnut, in all the gloss levels available in the range.

The waterborne system for joinery for exteriors CATAS QUALITY AWARD PLUS and CATAS WKI PREMIUM PLUS certified, is composed by the protective wood stain Hydroplus AM 546/XX and the topcoat Hydroplus AZ 21**/XX. It's extended to some colours of the protective wood stain AM 546/XX range (/84 Brenner walnut, /88 dark walnut, /92 walnut, /94 medium walnut) and to the topcoat AZ 21**/XX, for wet thickness of 300 micron, for the colours /89 teak, /92 walnut, /93 light walnut e /95 dark walnut, in all the gloss levels available in the range.





SUMMARY TABLE OF THE CATAS AND WKI TESTS RESULTS ON THE HYDROPLUS AM 546/XX - AZ 21**/XX COATING SYSTEM.

TEST	REFERENCE	REQUIREMENT	SAYERLACK SYSTEM RESULTS PROTECTIVE WOOD STAIN - TOPCOAT
Natural aging	EN 927-3	Class S based on EN 927-2	Stable
Effective prevention of fungus and moulds	CATAS procedure	Inhibited or very inhibited growth	Very inhibited growth
Water permeability	EN 927-5	<175g/m ²	Suitable
UV rays permeability	CATAS procedure	Between 280 and 340 nanometres < 1%	Suitable
UV rays permeability	CATAS procedure	Between 280 and 440 nanometres < 20%	Suitable
Stackability	EN ISO 4622	At 24 h - 23°C = no defect	No defect
		At 24 h - 50°C = no defect	No defect
Water resistance	EN 12720	Minimum value = 4	Suitable
Adhesion when wet	WKI procedure	> 1 MPA	Suitable
Accelerated aging	EN 927-6	Internal control = no defect	No defect
Elasticity of dry film	WKI procedure	Stretching to breaking point > 20%	Suitable

The preservative wood stain AM 546/XX overcoated with the topcoat AZ 21**/XX have also passed, with excellent results, extremely long outdoor resistance tests in Florida, certified by the Q-lab American authoritative laboratory, and the **EverSummer test**, in Florida and Australia, certified by the Atlas international laboratory, to achieve a two-summer exposure of the coated samples.

With the outdoor resistance test **Extreme**, lasted more than a year and performed according to the European standard EN 927-3, the AM 546/XX - AZ 21**/XX system reached the highest levels of quality, successfully passing three simultaneous exposures in Ohio (USA), Mexico and Russia.





CATAS Quality Award, CATAS Quality Award Plus, Catas WKI Premium and CATAS WKI Premium Plus certified systems.

Two-coat stain system for coniferous woods

AM 546

The day before, automatic or manual denibbing

AZ 21 - AZ 34** (CQAP)**

Stackable after 24 hours at 20°C

Drying 2/4 hours



SYSTEM 1

Two-coat stain system for coniferous woods

AM 507 - AM 546 - AM 508

Automatic buffing or manual denibbing the day after

AZ 21 - AZ 32** - AZ 34** - AZ 97****

Drying 2/4 hours

Stackable after 24 hours at 20°C



SYSTEM 2

Three-coat stain system for coniferous woods

AM 507 - AM 546 - AM 508

Drying 2/4 hours

AM 483 - AM 490 - AM 610

Drying 2/4 hours

Automatic buffing or manual denibbing the day after

AZ 21 - AZ 32** - AZ 34** - AZ 97****

Stackable after 24 hours at 20°C



Fonte: Albertini

SYSTEM 3

Three-coat stain system for coniferous woods

AM 507 - AM 546 - AM 508

Drying 2/4 hours

AM 473 - AM 475

Drying 2/4 hours

Manual denibbing the day after

AZ 21 - AZ 32** - AZ 34** - AZ 97****

Stackable after 24 hours at 20°C



SYSTEM 4

Three-coat stain system without sanding for coniferous woods

AM 507 - AM 546 - AM 508

Drying 2/4 hours

AZ 21 - AZ 32** - AZ 34** - AZ 97****

Drying 2/4 hours

The third coat has to be applied within 4 hours.

AZ 21 - AZ 32** - AZ 34** - AZ 97****

Stackable after 24 hours at 20°C

• The asterisks in the product code mean that there are different opacities.
 • The drying times vary based on the temperature of room, wood, product and of relative humidity.
 N.B. The aforementioned coating systems represent examples and general instructions about the use of our products.
 For information on other coating systems, contact Sayerlack Technical Assistance.



Fonte: Albertini

SYSTEM 5	
Two-coat stain system for hard woods	
AM 549 Automatic buffing or manual denibbing the day after AZ 21** - AZ 32** - AZ 34** - AZ 97**	Drying 2/4 hours Stackable after 24 hours at 20°C



SYSTEM 6	
Three-coat pigmented system for hard woods	
AM 549 AM 483 - AM 490 - AM 610 - AM 481 Automatic buffing or manual denibbing the day after AZ 21** - AZ 32** - AZ 34** - AZ 97**	Drying 2/4 hours Drying 4/6 hours Stackable after 24 hours at 20°C



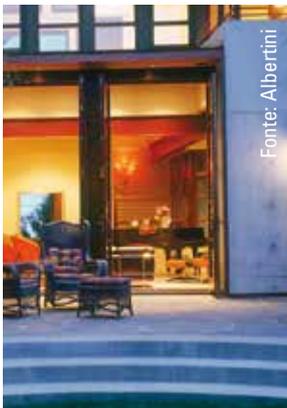
Fonte: Albertini

SYSTEM 7	
Three-coat stain system for hard wood	
AM 549 AM 473 - AM 475 The day before, manual denibbing AZ 21** - AZ 32** - AZ 34** - AZ 97**	Drying 2/4 hours Drying 4/6 hours Stackable after 24 hours at 20°C



Fonte: Albertini

SYSTEM 8	
Three-coat stain system without sanding for hard woods	
AM 549 The day before, automatic or manual denibbing AZ 21** - AZ 32** - AZ 34** - AZ 97** The third coat has to be applied within 4 hours AZ 21** - AZ 32** - AZ 34** - AZ 97**	Drying 2/4 hours Drying 2/4 hours Stackable after 24 hours at 20°C



Fonte: Albertini

SYSTEM 9	
Four-coat stain system for iroko, teak and Russian larch	
AM 549 AM 562/85 two-pac AM 562/85 two-pac The day before, automatic or manual denibbing AZ 21** - AZ 32** - AZ 34** - AZ 97**	Drying 2/4 hours Drying 2/4 hours Drying 8 hours Stackable after 24 hours at 20°C

• The asterisks in the product code mean that there are different opacities.
 • The drying times vary based on the temperature of room, wood, product and of relative humidity.
 N.B. The aforementioned coating systems represent examples and general instructions about the use of our products.
 For information on other coating systems, contact Sayerlack Technical Assistance.



SYSTEM 10

Three-coat white pigmented system for coniferous woods

AM 541/13 thinned 50% with water or **AM 549/00**

Drying 2/4 hours

AM 483 - AM 490 - AM 610 - AM 481

Drying 2/4 hours

The day before, automatic or manual denibbing

AZ 21 - AZ 26** - AZ 97** - AZ 63** - AZ 69** - XA 99****

Stackable after 24 hours at 20°C



Fonte: Albertini

SYSTEM 11

Three-coat white pigmented system for coniferous woods

AM 541/13 thinned 50% with water or **AM 549/00**

Drying 2/4 hours

AM 475/13 o **AM 473/13**

Drying 2/4 hours

The day before, manual denibbing

AZ 21 - AZ 26** - AZ 97** - AZ 63** - AZ 69** - XA 99****

Stackable after 24 hours at 20°C



Fonte: Albertini

SYSTEM 12

Three-coat white pigmented system for hemlock and meranti

AM 541/13 thinned 50% with water or **AM 549/00**

Drying 4 hours

AM 402/13 one-pack or

AM 562/13 two-pack

Drying 4/6 hours

The day before, manual denibbing

AZ 21 - AZ 26** - AZ 97** - AZ 63** - AZ 69** - XA 99****

Stackable after 24 hours

• The asterisks in the product code mean that there are different opacities.
 • The drying times vary based on the temperature of room, wood, product and of relative humidity.
 N.B. The aforementioned coating systems represent examples and general instructions about the use of our products.
 For information on other coating systems, contact Sayerlack Technical Assistance.



Fonte: Albertini

CLEAR HYDRO GOLD SYSTEM FOR CONIFEROUS WOODS

AM 303/84, 89, 90, 93

Clear protective wood stain for coniferous wood

Drying 2/4 hours

AM 603/91

Clear washcoat

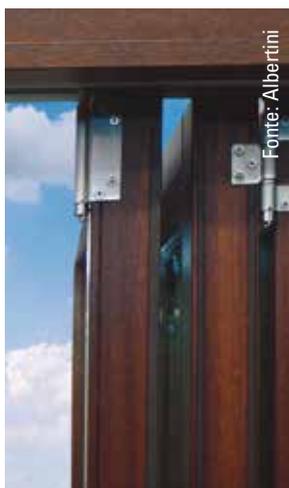
Drying 2/4 hours

The day after, automatic or manual denibbing

AZ 9030/86

Clear 30 gloss thixotropic topcoat

Stackable after
24 hours at 20°C



Fonte: Albertini

CLEAR HYDRO GOLD SYSTEM FOR HARD WOODS

AM 306/84, 89, 90, 93

Clear protective wood stain for hard woods

Drying 2/4 hours

AM 603/91

Clear washcoat

Drying 2/4 hours

The day after, automatic or manual denibbing

AZ 9030/86

Clear 30 gloss thixotropic topcoat

Stackable after
24 hours at 20°C



PIGMENTED HYDRO GOLD SYSTEM

AM 309/13

Pigmented protective wood stain
thinned 50% with water or **AM 306/00**

Drying 2/4 hours

AM 609/13

Pigmented thixotropic basecoat

Drying 2/4 hours

The day after, automatic or manual denibbing

AZ 9030/13, 41, 66

Pigmented 30 gloss thixotropic topcoats

Stackable after
24 hours at 20°C

• The asterisks in the product code mean that there are different opacities.
• The drying times vary based on the temperature of room, wood, product and of relative humidity.
N.B. The aforementioned coating systems represent examples and general instructions about the use of our products.
For information on other coating systems, contact Sayerlack Technical Assistance.

		WOOD TYPE						
COATING SYSTEMS		CONIFEROUS		HARD WOODS				
CLEAR		Fir, pine, douglas, larch ¹ , pitch pine		Meranti		Oak, chestnut		
		Windows	Blinds	Windows	Blinds	Windows	Blinds	
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
9	Clear system for exotic woods							
CATAS AND CATAS WKI CERTIFIED		Fir, pine, douglas, larch ¹ , pitch pine		Meranti		Oak, chestnut		
		Windows	Blinds	Windows	Blinds	Windows	Blinds	
	Two-coat stain system for coniferous woods.							
PIGMENTED		Fir ² , hemlock ³		Meranti				
		Windows	Blinds	Windows	Blinds	Windows	Blinds	
	10							
	11							
12								
HYDRO GOLD		Fir ²		Meranti		Oak, chestnut		
		Windows	Blinds	Windows	Blinds	Windows	Blinds	
	Clear for coniferous woods (pine, fir, douglas) and meranti.							
	Clear for hard woods: oak, chestnut, meranti.							
	Pigmented for coniferous woods or hard woods: lamellar fir and meranti.							

||||| Excellent |||| Very good ||| Good || Satisfactory | Sufficient

¹: excluding larch from Russia since it contains a high quantity of resins and extracts.

²: yellowing may occur due to natural tannins.

³: system 12



To assess the minimum coating thickness that must be applied and therefore the most appropriate system for wooden outdoor products, consider two factors: the risk of exposure class and wood type. In general, you can assume that windows protected externally by shades, blinds and rolling doors only need a two-coat system while windows that are not protected externally as well as the blinds and shades themselves need a three-coat system.





Fonte: Albertini



PROTECTIVE WOOD STAINS

AM 507

Protective wood stain for coniferous wood, meranti, okoume, characterized by a high harmonizing power, especially soft wood such as fir and hemlock with significant differences in absorption.

Ideal for preserving comb (finger) jointed wood. Guarantees reduced swelling of the wood fibre. Available in many shades of colour: 00 clear, 51 chestnut, 84 Brenner walnut, 85 larch, 88 walnut brown, 90 mahogany, 92 walnut, 94 medium walnut, 95 dark walnut.

AM 508

Water-based protective wood stain by a high harmonizing power, particularly on soft woods such as fir and hemlock with significant differences in absorption. Ideal for preserving comb (finger) jointed coniferous wood.

Given the high quality of the raw materials used, it is particularly suitable in the use of completely "natural" cycles or with very pale shades. For the completely natural cycle we recommend overcoating with the washcoat AM 610/00 and the water-based topcoat for exteriors AZ 8130/00.

AM 512

Water-based transparent protective wood stain for coniferous wood, with high solid content. Particularly suitable for attic beams, park playground equipment, street furniture. Its composition means that it provides lasting cover with several coats of protective wood stain.

Available in the following colours: 00 clear, 51 chestnut, 70 honey, 80 oak, 84 Brenner oak, 85 larch, 89 teak, 90 mahogany, 92 oak.

AM 541

Pigmented protective insulating wood stain that combines a high hiding power with an excellent flow. Reduces the loss of extractives. Available in the following colours: N0 neutral, 13 white, 66 hedge green.

AM 546

This is a specific clear protective wood stain for coniferous woods, meranti and okoumè. Shows the woods veins, giving it a pleasing aspect.

The protective wood stain is available in different colours to better meet all our customers' needs: 00 clear, 51 chestnut, 66 hedge green, 80 oak, 82 pine, 84 Brenner walnut, 85 larch, 88 walnut brown, 89 teak, 90 mahogany, 92 walnut, 93 light walnut, 94 medium walnut, 95 dark walnut.

Product certified with Catas Quality Award, Catas Quality Award Plus, Catas WKI Premium and Catas WKI Premium Plus.

AM 549

It is a clear protective wood stain for hard woods rich in extractives, such as Oak and Chestnut. Its tested formulation allows woods preservation without the need of barriers, without problems of flow and with a little fibre raising. It is available in the following colours: 00 clear, 51 chestnut, 66 hedge green, 80 oak, 82 pine, 84 Brenner walnut, 85 larch, 89 teak, 90 mahogany, 92 walnut, 95 dark walnut.

AM 550/13

A pigmented protective insulating wood stain. Excellent flow and easy use mean that it is recommended as a first coat for joinery made of marine plywood for exterior use. It can be applied by dipping and flow coating, and is suitable for softwood, meranti and okumé.



HYDROPLUS WASHCOATS

AM 481 - AM 483 - AM 490 - AM 610

Clear washcoats suitable for flow-coating and dipping applications on wooden manufactured articles for exteriors, with good hiding power and transparency; also easy to sand either with brushing devices or by hand. Still require application of a coat of Hydroplus protective wood stain. These products differ in the percentage of solid content. AM 490 is better for coating porous woods, whilst AM 483 is recommended for rapid manual sanding, AM 610 for cycles requiring more exterior staying power.

AM 481 can be used for coating systems which need more insulation on difficult to treat woods.

HYDROPLUS PRIMERS

AM 402

Thixotropic pigmented basecoat one-pack with excellent insulating power for extractives (tannin, gums, etc.) and the resin of some wood. Easy to apply and with good wettability is ideal for any type of application.

AM 473

Water-based thixotropic pigmented or clear basecoat with good sandability, high solid content and good hiding power. Suitable for porous woods such as meranti and okoume for the good wettability of the pore.
Available clear (00), larch (85) and white (13).

AM 475

Thixotropic pigmented or clear basecoat particularly suitable for the automatic sanding.
Easy to apply and at the top of the range. Available both clear (00), and larch (85) with iron oxides which are transparent for a "warmer" effect and improved protection. The pigmented version is available white (13), green (33), and neutral (N0) pigmentable up to 3% with the pastes XA 2006.

AM 562

This is a pigmented or clear two-component thixotropic basecoat to be hardened with 10% AH 1545. It is excellent for blocking extractives and resin even in difficult to coat woods. Unlike the other basecoats, it exhibits high resistance to chemical substances and high film hardness. It exhibits a good sandability. Available in neutral (N0) or white (13), which can be pigmented with series XA 2006 pastes, and in the larch stain version (85).





HYDROPLUS TOPCOATS

All Sayerlack Hydroplus topcoats, before being commercialized, are subject to strict tests as set forth by Regulation EN 927-2 and additional internal tests that assess outdoor durability.

AZ 21**

This is a clear or pigmented thixotropic topcoat with excellent water and humidity resistance, and high wettability. It exhibits good flow and transparency. The presence of UV absorbers allows protection from the sun. It is available in larch (85) at 20, 30, 45, 60 gloss; clear (00), teak (89) and dark walnut (95) at 20 and 30 gloss. Available in 30 gloss beech (83), walnut (92), light walnut (93) and dark walnut (95). 30 gloss pigmented version in white (13), hedge green (33), pure white (41), brown (65), musk green (66). 60 gloss pigmented version in white (13). Product certified with Catas Quality Award, Catas Quality Award Plus, Catas WKI Premium and Catas WKI Premium Plus (see page 10).

AZ 26**

Water-based pigmented thixotropic topcoat with excellent elasticity, no removal, good vertical hold, good flowing, no sedimentation in the tin, and fast drying. To guarantee lasting cover, it includes pigments suitable for exteriors, providing good covering power. Available in RAL 9001 HR cream white (R1), RAL 6005 HR moss green (R5), RAL 6009 HR fir green (R9), RAL 8017 HR brown (R7), RAL 9010 HR pure white (9010) colours, all 30 gloss.

AZ 32**

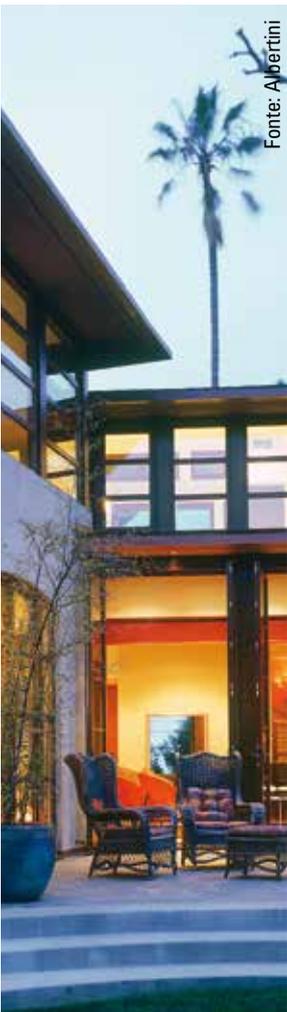
Clear thixotropic topcoat one-pack.

Top level flowing, transparency and water resistance. The moist film is exceptionally transparent. This special feature means that the product can be applied very thickly without the whitening effect during application which is typical of waterborne coatings. The high solid content allows to obtain an excellent covering also in two-coat systems. Available in larch (85), 30, 45, 60 gloss versions; teak (89), walnut (92) and dark walnut (95), 30 gloss version.

AZ 34**

Water-based topcoat one-pack featuring transparency and water resistance, making it innovative in the field of exterior wood protection.

AZ 34**, the result of extensive, valuable research by the Sayerlack labs, can combine good verticality with unparalleled wettability and high resistance to blocking with surprising elasticity, setting new benchmarks for waterborne coatings for exteriors. Available clear (00), 30 and 75 gloss versions; larch (85), teak (89) and walnut (92) 30 gloss version.



AZ 63**

Water-based pigmented thixotropic topcoat characterized by excellent hiding power, good vertical hold, no sedimentation in the tin. Fast drying. Precise choice of the pigments gives the topcoat AZ 63**/13 a high hiding power. Available in white (13) colour, 30 and 60 gloss versions.

AZ 69**

Thixotropic topcoat for tintometric systems available neutral (NN) and white (BB), 30 gloss. The topcoat stands out thanks to a high vertical hold and excellent stackability. Must be pigmented using the suitable pastes XA 2006.

AZ 8130/00

A specific waterborne one component topcoat for colourless coating process. Formulated with a blend of clear UV absorber to protect wood from sunlight without changing its natural colour. The full coating process includes AM 508/00 and AM 610/00.

AZ 97**

Water-based topcoat featuring elasticity and durability, making it ideal for protecting exterior wood. With the features required for specific industrial use such as flowing, transparency, smoothness to the touch and water resistance, as well as high levels of elasticity and durability. Available, as a thixotropic topcoat for tintometric systems, neutral (NN) and white (BB), 15, 30, 60 gloss versions pigmentable with the pigmented pastes XA 2006.

Available clear (00), 60 gloss; larch (85), 20, 30 and 60 gloss; teak (89) and walnut (92), 30 gloss

AZ 9030

Water-based clear or pigmented thixotropic topcoat with excellent resistance to water and moisture and thorough wetting of the manufactured article. The special composition allows extremely high resistance to UV radiation.

The combination of these characteristics makes this a tough, lasting exterior coating.

Available in oak (86) colour, 30 gloss.

The pigmented version is available white (13), RAL 9010 HR (41), RAL 6005 HR (66) colours, 30 gloss

XA 99**

Thixotropic topcoat for tintometric systems available neutral (NN) and white (BB), 15, 30, 45, 60 gloss. The topcoat must be pigmented using the suitable pastes XA 2006.

ADDITIVES

To keep the chemical and physical characteristics of Hydroplus water-based products unchanged over time, the following range of Additives is available:

Code	Description	Application
XA 469	Sealant	For brush application
XA 481	Filler/sealer	To seal end grain before the topcoat
XA 4009	Matting paste	Clear and pigmented topcoats
XA 4017	Recycled coating thinner	Clear and pigmented topcoats. Dip tanks/ deluge and autospray recovery systems
XA 4018	UV absorber	Clear topcoats
XA 4021	Anti-foam	Clear and pigmented topcoats
XA 4024	Anti-foam for flow-coating flow-coating	Protective wood stains and washcoats
XA 4026	Retardant thinner	Clear and pigmented topcoats and basecoats, protective stains, washcoats
XA 4034/ 04, 08, 22, 52, 53, 54, 57, 65, 72, 84	Iron oxides	Clear topcoats and basecoats, protective stains, washcoats
XA 4051	Anti spoil-age additive	Opened cans/dip tanks/deluge tanks of: clear and pigmented topcoats and basecoats, protective stains, washcoat
XA 4057	Anti-cissing additive	Clear and pigmented topcoats and basecoats, protective stains, washcoats
XA 4060	Detergent/cleaner	To clean the application equipment
XA 4066	Addensante	Clear and pigmented topcoats
XAV 2216/NN	Sealant	Cartridge sealant for application on V-joint





SHERWIN-WILLIAMS ITALY
Società a Responsabilità Limitata
Via del Fiffò 12
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**PRODUCT CERTIFICATE
CSEW PLUS n° 03/10**

We hereby certify the conformity of the coating system

SAYERLACK
impregnating stain AM0546/xx*
+
top coat AZ21xx/xx**
(MINIMUM WET FILM THICKNESS 300 MICRON)

to the EN 927-2:2006 performance specification and
to the additional requirements of the

**CATAS QUALITY AWARD
COATING SYSTEM FOR EXTERIOR WOOD PLUS**
(STABLE* PRODUCTS)
technical rules rev. 08 dated 10.02.2014.

THE USE OF THE WORD **PLUS** INDICATES THAT THE CERTIFIED COATING SYSTEM SATISFIES THE
NATURAL WEATHERING TEST REQUIREMENTS FOR AN EXPOSURE TIME
TWICE AS LONG AS THAT REQUIRED BY EN 927-3 (2 YEARS).

* IMPREGNATING STAIN COLOURS	92 WALNUT	94 MEDIUM WALNUT
84 AMERICAN WALNUT	88 BROWN WALNUT	92 WALNUT
** TOP COAT SHADES	89 TEAK	93 LIGHT WALNUT
		95 DARK WALNUT

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Chief Executive

This document is validated by digital signature and time stamping in accordance with the Italian law and the European Directives which regulate the electronic signature systems.




COATING SYSTEMS FOR EXTERIOR WOOD

SHERWIN-WILLIAMS ITALY
Società a Responsabilità Limitata
Via del Fiffò 12
40065 - Pianoro - BO

WE HEREBY CERTIFY
THE CONFORMITY OF THE COATING SYSTEM
SAYERLACK
AM0546/XX* Hydro impregnating stain
+
AZ21XX/XX** Hydro top coat
(minimum wet film thickness 300 micron)

*Impregnating stain colours:
84 American Walnut - 88 Brown Walnut - 92 Walnut - 94 Medium Walnut
89 Teak - 93 Light Walnut - 95 Dark Walnut
** Top coat shades

TO EN 927-2 AND TO THE ADDITIONAL
REQUIREMENTS OF THE
CATAS WKI PREMIUM PLUS
COATING SYSTEMS FOR EXTERIOR WOOD

The use of the word PLUS indicates that the certified coating system satisfies the
natural weathering test requirements for an exposure time twice as long as that
required by EN 927-3 (2 years).

We are pleased to declare that the production of the above
mentioned coating system is supervised by CATAS and WKI
and has therefore obtained the certification n° 01/11.

CATAS
dr. Andrea Giovan

WKI
dr. Claudia Philipp

FROM 01 JANUARY 2013
TO 31 DECEMBER 2016



COATING SYSTEMS FOR EXTERIOR WOOD

SHERWIN-WILLIAMS ITALY
Società a Responsabilità Limitata
Via del Fiffò 12
40065 - Pianoro - BO

WE HEREBY CERTIFY
THE CONFORMITY OF THE COATING SYSTEM
SAYERLACK
AM0546/XX* Hydro impregnating stain
+
AZ21XX/XX** Hydro top coat
(minimum wet film thickness 300 micron)

*Impregnating stain colours:
84 American Walnut - 88 Brown Walnut - 92 Walnut - 94 Medium Walnut
89 Teak - 93 Light Walnut - 95 Dark Walnut
** Top coat shades

TO EN 927-2 AND TO THE ADDITIONAL
REQUIREMENTS OF THE
CATAS WKI PREMIUM PLUS
COATING SYSTEMS FOR EXTERIOR WOOD

We are pleased to declare that the production of the above
mentioned coating system is supervised by CATAS and WKI
and has therefore obtained the certification n° 02/09.

CATAS
dr. Andrea Giovan

WKI
dr. Claudia Philipp

FROM 01 JANUARY 2013
TO 31 DECEMBER 2016

09/2014

Z02A09UK



Sayerlack is a brand of The Sherwin-Williams Company

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