

## Technical Data Sheet | AZL5949/00 CLEAR TWO-PACK WATERBORNE TOPCOAT FOR EXTERIORS

Date March 09<sup>th</sup> 2023

Version and Color:	15 gloss, colourless		
Area of use:	Front doors, windows frames, outdoor furniture		
Method of use:	Conventional, pressure pot, airmix, electrostatic spray gun (if used with equipment suitable for water products)		
Thinning:	Ready to use, if necessary use tap water		
Mixing procedure:		by weight (kg)	by volume (lt)
	AZL5949/00	100	100
	AH1576/00	10	10
	Water	5 ÷ 10	5 ÷ 10

### General characteristics

Solid content (%):	AZL5949/00	33 ± 2
	AH1576/00	70 ± 1
* Pot-life at 20°C:	3 hours with AH1576/00	
Recommended application amount (g/m <sup>2</sup> ):	from 120 to 150	
Number of coats:	1 or 2	
*Drying time (150 µm wet at 20°C):	Touch dry:	6 hours
	Through dry:	12 hours
	Stacking:	24 hours
	Sanding:	24 hours
*Forced air drying (150 µm wet at 35°C):	Through dry:	3 – 4 h
	Stacking:	on oven exit
	Sanding:	16 hours
*Spreading rate (m <sup>2</sup> /l) (150 µm wet):	6	
*Shelf-life (months):	15	

AZL5949/00 is a 2-pack waterborne thixotropic topcoat (this is the 15 gloss version of the 30 gloss AZL5922/00) designed for front exterior doors, outdoor furniture, and especially for waterborne systems to be applied onto timbers rich in extractives, such as Iroko, Oak, Chestnut, etc. AZL5949/00 could be pigmented with the waterborne transparent iron oxide pastes series XA4034/XX (0,1÷1%) and with the pastes for

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lacquering series XA2006/xx (0,1÷5% with all colors in range; for the white 20% is allowed) in order to achieve a wide range of colors.

Thanks to its special formulation, AZL5949/00 ensures the following characteristics:

- good elasticity also after exposure outside to UV radiation;
- limited grain swelling of softwood;
- good anti-sagging properties

AZL5949/00 could be alternatively hardened with 10% of AH1545/00, isocyanate hardener specifically designed for 2-pack; the final paint film will be more elastic but lose about 5 gloss and becomes less resistant to sagging.

### Sanding of the raw wood

As a result of the hydrophilic nature of cellulose, waterborne products tend to swell the grain of the wood. To minimize this problem, it is important to sand the substrate thoroughly with 150 grit paper in case of softwood and with 180 grit paper in case of hardwood.

### Preparation of the substrate

AZL5949/00 has to be applied on surfaces previously treated with a Hydroplus protective wood stain.

### Application

AZL5949/00 can be applied by means of the conventional spraying systems (pressure pot, airmix and electrostatic spray guns) both horizontally and vertically.

We advise against using very thick layers of topcoat in a single application since uneven drying of the film could lead to cracking, especially in areas of build up (grooves in shaped panels).

Mix thoroughly AZL5949/00 + AH1576/00 and water if necessary before applying. We advise to pre-dilute, mix and after add the hardener carefully mixing.

### Application devices

- For conventional spray guns: 1.9 ÷ 2.7 mm (0,048 ÷ 0,069 inch) nozzle, pressure 3 - 4 bars
- For airmix spray guns: 0,0011÷0,0013 inch nozzle, material pressure 80 ÷100 bars, air pressure 1 - 2 bars
- The use of a pre-atomizer and/or of a pre-heater (30 ÷ 35°C) has proven to give excellent results in terms of flow and high quality consistency.

Equipment that is not in perfect condition (faulty seals, too high pressures) or pumps with low capacity can cause serious defects in the coating film (especially air bubbles defects).

We recommend the use of a two-feed mixing pump in order to reduce waste and to improve the quality of the coating applied in terms of resistance to stacking and to chemicals.

### Drying

2-pack waterborne products must be dried in environments with temperatures no lower than 15°C and relative humidity no greater than 70%. Outside this range, drying is slower and/or the film will have poorer hardness and chemical resistance. For good drying it is advisable to flash-off in well ventilated environment at room temperature then force drying until 35°C.

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### Warning

- The reaction between isocyanic hardeners (AH1576/00) and water or moisture leads to the formation of a harmless gas (carbonic anhydride) which is commonly present in the atmosphere. As a result, we always recommend not to hermetically seal the container housing the blend of basecoat with isocyanic hardener.
- Do not store the product at temperatures lower than 5°C or higher than 35°C..
- Coating residues must be disposed of in accordance with current legislation. Do not throw any residues in the sewers.
- In view of the wide variety of materials used for manufacturing wooden products, when switching from a solvent-based to a waterborne coating system it is always advisable to contact your suppliers' technical departments to check whether your equipment and components are. In particular check: electrostatic guns, pumps, seals, silicones, glues, booth treatment water products and packaging materials.
- Once the can has been opened, the waterborne protective wood stay may rot because of the attack of bacteria, moulds and fungi commonly present in the air. This phenomenon is easily detectable because of the bad smell, increase of viscosity, mould on the surface and change of color. This problem may take place also in case of products left for a long time in vessels for dipping or flow-coating application, mainly during summertime.

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