

Technical Data Sheet

AZ97XX/XX WATERBORNE PIGMENTED TOPCOAT FOR TINTOMETRIC SYSTEM

Supersedes previous issue dated July 8th, 2020

DATE May 8th, 2023

Versions:	AZ9715/BB	White converter, 15 gloss
	AZ9730/BB	White converter, 30 gloss
	AZ9760/BB	White converter, 60 gloss
	AZ9715/NN	Neutral converter, 15 gloss
	AZ9730/NN	Neutral converter, 30 gloss
	AZ9760/NN	Neutral converter, 60 gloss
	AZ9730/13	White, 30 gloss
	AZ9760/41	RAL 9010, 60 gloss
Area of use:	Door and window frames and wooden parts exposed outdoors.	
Method of use:	Spray (conventional, airless, airmix and electrostatic spray guns suitable for waterborne products).	

Technical characteristics

Solids content (%):	44 ± 2	white versions
	37 ± 1	neutral versions
Specific gravity (kg/l):	1.180 ± 0.030	white versions
	1.030 ± 0.030	neutral versions

General characteristics

Number of coats:	From 1 to 2 according to the coating system desired	
Recommended application weight (g/m ²):	From 120 to 300 according to the number of coats	
Drying time (250 g/m ² at 20°C):	Dust free:	40 min.
	Touch dry:	2 hours
	Overcoatable:	4 hours
	Stackable:	24 hours
Forced air drying (250 g/m ²):	Flash off:	30 min.
	Hot air at 40°C.:	90 min.
	Cooling:	30 min.
	Overcoatable:	2 hours
Shelf-life (months):	15	

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WARNING: ACTUAL VISCOSITY OF SOME PIGMENTED AND/OR THIXOTROPIC PRODUCTS MAY DIFFER FROM THE VISCOSITY SHOWN ON THE TECHNICAL DATA SHEET. DIFFERENCES ARE TO BE REGARDED AS ACCEPTABLE IF WITHIN 30% MAXIMUM.

COMPANY WITH
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Cap. Soc. Euro 2.626.182 I.V. - Codice Mecc. Bo 014531

Company under the direction and coordination of The Sherwin-Williams Company, USA

AZ97XX/NN base must be tinted with waterborne pastes XA2006/XX according to the mixing ratio shown in the formulary.

AZ97XX/BB base can be used as it is or tinted with waterborne pastes XA2006/XX according to the mixing ratio shown in the formulary.

AZ9730/13 is a white topcoat, intended to be used as it is or tinted with XA2006/XX according to the mixing ratio shown in the formulary.

The product exhibits good thixotropy and can be applied even vertically in thick coats (max. 300 g/m² wet) with no sagging problems.

AZ97XX/XX main characteristics are the absence of "blocking", application versatility and durability (thanks to the applied film elasticity).

Wood species

The most suitable wood for exterior grade pigmented topcoat application is softwood, provided the species have few knots and are resin-free (resin can seep through the film of coating and damage its aesthetic appearance).

The most suitable timber is hemlock, followed by white fir, which in general has relatively few small, resin-free knots.

Pine gives varying results depending on the place of origin, the period in which the tree was cut and seasoning of the timber. For this reason, not even products with extremely high insulating power can prevent pine resin from eventually seeping out and forming yellow stains.

The same applies to douglas fir.

Iroko, oak, chestnut and cedar cause similar problems because of their tannin content, so they are unsuitable for pigmented systems.

Sanding of the bare wood

As a result of the hydrophilic nature of cellulose, waterborne products tend to swell the soft vein of the wood. To minimize this problem, it is important to sand the substrate thoroughly with 150 grit paper or an extra - sanding.

Thickness of the coating

To assure adequate resistance for outdoor exposure, it is essential to apply a layer of minimum dry thickness of 100 µm. Better results are obtained with a dry thickness of 150 µm. We advise against using very thick layers of topcoat in a single application since uneven drying of the film can give rise to cracking, especially in areas of build up (grooves in shaped panels).

Application

Pigmented bases can be applied by means of the conventional spraying systems (airless, airmix and electrostatic spray guns) suitable for waterborne products.

For electrostatic application, an equipment expressly designed for waterborne coatings is required.

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Application devices

- For conventional spray guns: 2.2-2.5 mm nozzle, pressure 3-4 atm.
- For airmix spray guns: 9-11 nozzle, material pressure 90-120 atm., air pressure 1-2 atm.
- For airless spray guns: 9-11 nozzle, material pressure 90-120 atm.

It is also possible to use fan or cone nozzles equipped with a pre-atomiser.

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 (in particular air bubbles).

Drying

Waterborne products must be dried in rooms with temperatures not below 15°C and relative humidity no greater than 65%. Outside this range drying is slower and/or the film is formed with poorer hardness and chemical resistance. For good drying it is advisable to use a forced flow of dry air initially at room temperature and subsequently at 25-35°C.

Chemical resistance and cross-linker

In view of the poor resistance of waterborne products to alcohols and ammonia, door and window frames coated with these products should be cleaned with neutral detergent solutions in lukewarm water. The possible addition of 1% of XA4080/00 crosslinker in the topcoat after thinning the topcoat by 5% with water, makes the film very resistant against chemical agents. The cross linker has a pot life of 16 hours, after which it must be revived.

Adhesives, seals, silicones and packaging materials

Glueing must be done very accurately using waterproof glues (preferably from class D4 according to EN 204) since waterborne products show sticking problems with the following detachment and/or swelling of the veneer.

We advise against using PVC based seals (even as the supporting base for trolleys) since they release plasticizers that attack and soften the film of coating.

Neutral silicone is the most suitable type for mounting glass in door or window frames coated with waterborne products. Acetic silicones provide poor adhesion.

Expanded polystyrene, bubble wrap and PVC-based plastic materials are unsuitable for packaging door and window frames coated with waterborne products.

Expanded polyethylene is the packaging material giving the best results.

Special instructions

- Do not store the product at temperatures lower than 5°C.: keep from freezing.
- Coating residues must be disposed of in accordance with current legislation. Do not pour residues down drains.
- To increase the storage life of products after first use, use additive XA4051/00. See related technical data sheet for instructions of use.

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