

## Technical Data Sheet

## AZ97\*\*/BB WATERBORNE PIGMENTED CONVERTER FOR TINTOMETRIC SYSTEM – WHITE

Supersedes previous issue dated 05/24/2012

DATE 08/08/2012

Versions:	15, 30, 60 gloss.
Area of use:	Door and window frames and wooden parts exposed outdoors.  As a white base for the waterborne tintometric system for exteriors; to be tinted with XA2006/XX waterborne pastes.
Method of use:	Spray (conventional, airless, airmix and electrostatic spray guns suitable for waterborne products).

### Technical characteristics

Solids content (%):	46 ± 1
Specific gravity (kg/l):	1.190 ± 0.030

### General characteristics

Number of coats:	From 1 to 3 according to the coating system desired
Recommended application weight (g/m <sup>2</sup> ):	From 120 to 300 according to the number of coats
Drying time (250 g/m <sup>2</sup> at 20°C):	Dust free: 40 min. Touch dry: 2 hours Overcoatable: 4 hours Stackable: 24 hours
Forced air drying (250 g/m <sup>2</sup> ):	Flash off: 30 min. Hot air at 40°C.: 90 min. Cooling: 30 min. Overcoatable: 2 hours
Shelf-life (months):	15

AZ97\*\*/BB base can be used as is or tinted with waterborne pastes 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/m<sup>2</sup> wet) with no dripping problems.

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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.

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MANAGEMENT SYSTEM  
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Sherwin-Williams Italy S.r.l. – con unico socio  
Via del Fiffo, 12 - 40065 Pianoro (BO) - Italia - C.P. 18  
tel. +39 051 770 511 - fax +39 051 777 437  
www.sayerlack.com  
Cod. Fisc. e Reg. Impr. Bo 08866930152  
P. IVA: IT 00494251200 - R.E.A. n. 313180  
Cap. Soc. Euro 2.626.182 I.V. - Codice Mecc. Bo 014531

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AZ97\*\*/BB main characteristics are the following:

1. absence of "blocking";
2. absence of spontaneous combustion;
3. absence of lifting problems (even overcoating after very short intervals);
4. protection against UV radiations;
5. application versatility;
6. 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 minimise 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.

### 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.

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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 plasticisers 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.
- When switching from a solvent-based to a waterborne coating system it is always advisable to contact suppliers' technical departments to check whether equipment and components are appropriate. In particular, check: electrostatic guns, pumps, seals, silicones, glues, booth treatment water products and packaging materials.
- Once the can has been opened, the coating is susceptible to the attack of bacteria commonly present in the air, which can cause rotting, as evidenced by the foul smell and increase in viscosity of the product in the can. To avoid this problem, do not pour used coating back into cans with fresh product and do not leave cans open for more than a week, especially in hot weather. To increase the storage life of products add Hydroplus bactericides.

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