



Aquadur PR 251

Technical Specification

Date of Issue: 27/05/2025

 Version Number: 1st

Water-based acrylic impregnation primer, resistant to fungi, bacteria and blue stain



AQUADUR PR 251 is a medium-viscosity, water-based acrylic impregnation primer designed for base and intermediate coatings on wooden surfaces, especially for exterior use. Its advanced formula offers enhanced protection against fungi, bacteria and blue stain, ensuring long-term durability. It is characterized by excellent penetration, strong water-repellency and insulation capacity, while offering high whiteness and opacity. It sands easily and prepares the surface perfectly for the final coating. It is odorless and can be applied via flow coating, dipping, or spraying.

Fields of Application

Ideal for German-type wooden frames, pergolas, exterior wooden constructions and surfaces that require increased protection against microorganisms and moisture. Suitable for non-final and intermediate coatings.

Properties – Advantages

- Enhanced Antimicrobial Action: Contains active agents that protect against bacteria, fungi and blue stain.
- Excellent Penetration: Deeply impregnates the wood, stabilizing the substrate.
- High Water Repellency: Forms a protective barrier against moisture.
- Odorless and Environmentally Friendly: Contains no organic solvents.
- Easy to Sand: Smooths out easily, ensuring flawless final coating.
- High Whiteness and Opacity: Provides a uniform finish.

Physical & Technical Characteristics

Property	Value
Solids by weight (%)	51 ± 1 (ASTM D2369)
Density (Kg/L)	1,24 ± 0,012 (EN ISO 2811-1)
Viscosity	100 ± 2 KU (ASTM D562, 20°C)
Consumption	120–160 mL/m ² (depending on absorbency)
Touch Dry	1 hour
Sandable	After 4 hours
Recoatible	After 8 hours (water-based), 16 hours (solvent-based)
VOC	≤129 g/L (Limit: 130 g/L - Category A.d (Y))

Instructions for Use

Surface Preparation

Surfaces must be clean, dry, and smooth, free from dust, resin, loose particles, or residues of old coatings. Wood moisture content should be less than 15%. In case of mold presence, prior treatment with VERNILAC's fungicidal cleaner is recommended.

Application

Always stir the product well before use. Apply by spray gun, flow coating, or dipping. Optimal performance is achieved with the proper dilution and application settings as shown in the spray table. For automated industrial systems, contact the Technical Department.

Dilution

- For dipping or flow coating: 30–40% with clean water
- For spraying: up to 10%

Application Conditions

Apply at temperatures from +10°C to +35°C and relative humidity up to 75%. Avoid application in high humidity or temperatures below +10°C.

Drying – Recoating / Curing Details

- **Touch Dry:** 1 hour
- **Sandable:** After 4 hours
- **Recoatible with water-based products:** After 8 hours
- **Recoatible with solvent-based products:** After 16 hours





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- Use appropriate personal protective equipment during application.
- Apply in a well-ventilated area.
- Avoid application in high humidity conditions.

CoverageApprox. 120–160 mL/m² per coat, depending on wood type and absorbency.**Shades / Gloss Level**

Available in white – matte finish.

Shelf Life – Storage

In factory-sealed containers, the product remains stable for at least 12 months when stored in a cool, shaded place between +5°C and +35°C. After use, reseal the container tightly and store under appropriate conditions.

Tool Cleaning

Tools should be cleaned with water immediately after use

Waste Management

Do not dispose of leftover material with household waste or into the sewage system. Empty containers must be managed in accordance with current legislation. Contact local authorities and national waste management bodies for proper disposal guidance.

Volatile Organic Compounds (VOCs)

Maximum EU limit value for this product (Directive 2004/42/EC): Category A.d (Y), Interior/Exterior use for wood and metal finishes.

VOC content of ready-to-use product: ≤129 g/L (Limit Phase II: 130 g/L)

Packaging

Available in 3 L and 20 L.

Spray Method Parameters

Spray Method	Airless	Air-mix (with air support)	Conventional Spray Gun
Spray Pressure (Bar)	100–120	80–100	–
Air Pressure (Bar)	–	1.5–2.0	3–4
Nozzle Size (mm)	0.28–0.33	0.28–0.33	2–2.5
Nozzle Size (inch)	0.011–0.013	0.011–0.013	–
Spray Angle (°)	20–50	20–50	20–50
Thinning (% by volume)	None	Up to 5%	0–10%

Safety Instructions

For instructions on safe handling, see the container label. For detailed instructions on the hazards regarding storage, disposal, and safe use, please refer to the latest Safety Data Sheet which contains ecological, toxicological and other data on safety when handling the product. Poison Center for GREECE: 210 7793 777 / for CYPRUS 1401.



All details, technical data, advice and information provided in this manual are the result of laboratory measurements, numerous tests, long-term research, multiple technical applications, and many years of experience. This information and specifications should be considered as recommendations, as there may be discrepancies between them. The company tries to ensure the accuracy of the information provided, but product specifications are subject to change without notice and may differ from those shown. In practice, differences in materials, substrates and application conditions can affect the suitability of materials for the specific use and working conditions. No liability whatsoever can be established against the company on the basis of the information, written instructions or any other form of instructions provided herein. It is the responsibility of the user to confirm that the material is suitable for the intended use, and consequently, the user is solely responsible for the results obtained from the use of the product. Moreover, the Company is not responsible for normal wear and tear or damage caused by environmental or other improper conditions. The limitations and conditions of the disclaimer apply in line with the applicable legislation. The company maintains a Technical Support Department, which is the only one responsible for providing technical advice and solutions to problems. Requests to the Technical Support Department are addressed and answered only in writing. To access the latest version of the Technical Data Sheet, which replaces all previous versions, please visit our official website at www.vernilac.gr.

