

TECHNICAL DATA SHEET
Protovil WR/P**Version no.:****Creation date:** 23.10.2018**Verification date:** –**Page:** 1 of 3

Protovil WR/P is a water-based product developed from polyvinyl acetate, specifically designed for water-resistant bonding – classified as D3 according to EN 204. By adding 5% of hardener CTZ F15 or CTZ F200, the adhesive achieves a D4 classification.

Applications:

- Prefabricated parquet
- Windows and doors
- Bathroom furniture
- Items exposed to tropical climates
- Kitchen furniture
- Countertops
- Cabinet fronts
- Wood-to-wood bonding requiring water resistance

Chemical-Physical Properties and Optimal Usage Conditions:

- **Base:** Polyvinyl acetate dispersion
- **Color:** White; transparent when dry
- **Film formation temperature:** +5°C (theoretical value)
- **Viscosity at 20°C:** 14,000 ± 2,000 mPas (RVT Brookfield measurement, R6, 20 rpm)
- **Density at 20°C:** 1.1 ± 0.1 kg/l
- **Hardeners (D4 classification):** CTZ F15 or CTZ F200 at 5%
- **Mix pot life:**
 - With CTZ F15: approx. 1 hour
 - With CTZ F200: 6 – 8 hours
- **Dilution:** Adhesive does not require dilution; diluting may reduce bonding properties.
- **Required adhesive quantity:** 140 – 180 g/m²
- **Working temperature:** 20°C (recommended)
- **Wood moisture:** 8 – 12%

- **Relative humidity (RH):** 50 – 70%
- **Open time at 20°C:** 10 minutes
- **Time to achieve full joint strength at 20°C and 55% RH:** 24 hours
- **Application machine:** Coater
- **Machine cleaning method:** With hot water
- **Required pressing force during bonding:** 3 – 5 kg/cm²
- **Hazard:** None

After approximately 10 minutes in the press at 20°C, Protovil WR/P reaches 50% of its final bonding strength. It is suitable for hot pressing and quickly achieves high adhesion values. For instance, bonding at 80°C (e.g., laminates 0.6 mm thick) reaches final bonding strength after just 60 seconds in the press.

Sample Bonding Times at 10% Wood Moisture and 3 kg/cm² Pressure:

Bonded Materials	Temperature (°C)	Bonding Time
Hardwood - Softwood	20	15 – 30 minutes
Hardwood - Softwood	70	5 – 7 minutes
High frequency	–	40 – 60 seconds
Laminate - Chipboard	20	10 – 15 minutes
Laminate - Chipboard	70	60 – 70 seconds

Application Guidelines:

- Spread product evenly using specialized devices on one of the surfaces to be bonded; ensure that surfaces are clean.
- For hardwood bonding, it is recommended to apply adhesive to both surfaces.
- Bond quality largely depends on the bonding surfaces' characteristics, particularly absorbency. At least one of the bonded elements must be water-absorbent.
- Materials with uneven thickness may require different amounts of adhesive.
- The adhesive does not change the color of the bonded wood; however, contact with rusting materials and containers should be avoided to prevent color changes.
- Ensure adequate pressing force; surfaces should fit well and be smooth.
- Store the adhesive in a tightly sealed container to prevent thickening.
- Water resistance should be checked 7 days post-bonding.

Shelf Life:

Up to 12 months from opening.

Protect from frost and store at a minimum temperature of +10°C.

A product safety sheet is available upon request.

The information provided is based on current knowledge and experience but does not constitute a guarantee of product properties or a quality specification and cannot be grounds for claims. The manufacturer assumes no responsibility for losses arising directly or indirectly from following these guidelines or instructions. Additional tests may be required depending on the materials or techniques used. Ensure compliance with applicable patent laws.