



Product Technical Data Sheet - WP4 Water-proof PVA Glue

Effective Date: 1st December 2022

WP4 is a one-component PVA adhesive conforming to DIN EN 204 class D4 specification for water-resistance.

Features

- One component.
- Fast setting.
- Short press time.
- Improved adhesion to difficult wood species (e.g., oak, larch).
- No discolouration of the glue line due to the influence of process heat (e. g. RF-press).
- Improved heat- and water resistance when using high process temperatures (e. g. +70 °C).

Instructions for use

The open time and setting time vary according to working conditions such as temperature, humidity, absorbency of the materials being worked, and amounts applied.

Good results will be achieved if the following conditions are observed:

Room, material and adhesive temperature	18 ... 20°C
Moisture content of wood	
8...10%	
Application coat weight for assembly gluing	150 ... 180 g/m ²
Open time at 150 g/m ²	8 ... 9 min
Chalk point:	approx. 8 °C

Press Pressure for:

stress free workpieces 0,1 ... 0,5 N/mm²

Minimum pressing times:

Assembly gluing 8 ... 15 min

Short cycle press at +70°C > 1 min

Boards and block gluing 20 40 min

Laminating of wooden window profiles: In accordance with the Quality Guidelines of i.f.t. Rosenheim, "Laminated Profiles for Wooden Windows", the wood moisture content must be $13 \pm 2\%$. The room temperature and the wood temperature must be at least +15°C.

Wood preparation

All parts should mate well and be dust and grease free. Inaccurately machined parts will lead to longer setting times and weaker bonds. The joints should be processed shortly before bonding.

Application of the adhesive

Apply WP4 thinly and evenly to one side or, if a high degree of water resistance is required, to both sides, using a spreading machine, glue roller, serrated trowel, glue brush, or another suitable device.

Pressing

Lay the items to be bonded together within the workable time and press them for as long a time as is needed to achieve the required initial firmness upon release.

The pressure should be high enough to ensure contact of the parts over the entire area of the joint. The substrates must be pressed before the adhesive skins on the substrate surface.

Highest levels of water resistance form more slowly and should be tested not earlier than 7 days after bonding.

Chemical-technical Data

Colour:	white.
Viscosity:	3,000 – 9,000 mPas. (Brookfield HB, Spindle 4, 20 rpm, at 25°C, on the day of production).
pH value:	approx. 3.0.
Base:	PVA dispersion.

Wood discoloration

Because of the varied nature of wood components, e.g., depending on the area of growth and the type of pre-treatment, unpredictable discoloration may in some cases appear on different types of hard wood, such as beech, cherry and others.

In addition, it is possible that iron together with the tannin in the wood can cause discoloration, especially in the case of oak. We recommend you test this for yourself.

Cleaning

Clean machines and utensils with warm water before the adhesive dries.

Equipment

Do not use storage tanks, pipelines and spreading devices made from carbon steel, galvanised steel, aluminium or other non-ferrous metals on account of the slightly acidic nature of the dispersion, which can cause corrosion.

For this reason, we recommend the use of storage tanks, pipes and spreading devices made from stainless steel or plastic (hard PVC, polyethylene, polyester resin).

Labelling

WP4 is not subject to the marking regulations in accordance with the Dangerous Goods Act (in its present version).

Precaution

Please observe the information given in our Material Safety Data Sheets (available on request).

Storage

Store WP4 at room temperature of 15 °C to 25 °C in tightly closed original containers. The shelf life is a minimum of 6 months provided it is stored correctly. N.B. Storage temperatures above 30 °C can seriously reduce shelf-life.

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