



## Rakoll® GXL 4

**Type of Adhesive** One-component PVA adhesive.

**Product Benefits**

- conforms with DIN EN 204: D4 and DIN EN 14257 (WATT 91)
- excellent water resistance
- improved adhesion on difficult wood species
- no discolouration of the glue line due to the influence of process heat (e.g. HF press)
- improved heat- and water resistance when using high process temperatures (e.g. 70°C)

**Typical Applications** Window scantlings; door production; parquet production; layer boards.

**Suitable substrates** Wooden based materials.

### Typical Properties

Property	Value
Base	PVA dispersion
Colour	white
pH	approx. 3.5
Density	approx. 1.09 g/cm <sup>3</sup>
Viscosity (Brookfield HB; Sp2; 20rpm; at 20°C)	approx. 5 500 mPa.s
Shelf life	9 months



### Application Instructions

Apply thinly and evenly to one side or, if a high degree of water resistance is required, to both sides.

#### Application by:

- spreading machine
- glue roller
- serrated trowel
- glue brush or another suitable device

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

- Room temperature: 18 – 20°C
- Moisture content of wood:
  - for internal parts: 8 – 10%
  - for external parts: 11 – 15%
- Application quantity for assembly gluing: 150 – 180 g/m<sup>2</sup>
- Open time at 150 g/m<sup>2</sup>: 8 – 9 minutes
- Chalk point: approx. 8°C
- Press pressure for stress free work pieces: 0,1 – 0,5 N/mm<sup>2</sup>

#### Minimum pressing times:

- Assembly gluing: 8 – 15 minutes
- Short cycle press at 70°C: >1 minute
- Boards and block gluing: 20 – 40 minutes

#### 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 +/- 2%. The room temperature and the wood temperature must be at least 15°C.

#### 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.

Depending on the material and the type of bond being used, the mechanical firmness required for further processing of the parts is achieved within the shortest possible space of time.

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



### Wood discolouration:

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 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.

### Wood preparation:

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

### Equipment:

Properties of storage tanks, pipelines and spreading devices made from steel, galvanised steel aluminium or other non-ferrous metals cannot be recommended on account of the slightly acidic nature of the dispersion, as there is a danger of corrosion.

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

<b>Cleaning Instructions</b>	Please contact your local Sales Office for available cleaning solutions.
<b>Typical Packaging</b>	Please contact your local Sales Office for available packaging options.
<b>Storage Conditions</b>	In original sealed packaging protected from sun, dust, moisture and high temperatures. Please store at clean and dry conditions from +5°C to +20°C.
<b>Disposal Advice</b>	Please refer to the MSDS for disposal instructions.
<b>Safety Advice</b>	Please refer to the MSDS for safety advice.

## Our Focus is Clear. Perfecting Adhesives.

**IMPORTANT:** The information, specifications, procedures and recommendations herein (together "information") are based on our experience and we believe these to be accurate. No representation, guarantee or warranty is made as to the accuracy or completeness of the information or that the information will avoid losses or damages or give desired results. It is purchaser's sole responsibility to test and determine the suitability of any product for the intended use. Tests should be repeated if materials or conditions change in any way. No employee, distributor or agent has any right to change these facts and offer a guarantee of performance.

**NOTE TO USER:** by ordering/receiving product you accept the H.B. Fuller General Terms and Conditions of Sale applicable in the region. Please request a copy if you have not received these. These Terms and Conditions contain disclaimers of implied warranties (including but not limited to disclaiming warranties of fitness for a particular purpose) and limits of liability. All other terms are rejected. In any event, the total aggregate liability of H.B. Fuller for any claim or series of related claims however arising, in contract, tort (including negligence), breach of statutory duty, misrepresentation, strict liability or otherwise, is limited to replacement of affected products or refund of the purchase price for affected products. H.B. Fuller shall not be liable for loss of profit, loss of margin, loss of contract, loss of business, loss of goodwill or any indirect or consequential losses arising out of or in connection with product supply.

Nothing in any term shall operate to exclude or limit H.B. Fuller's liability for fraud, gross negligence or for death or personal injury caused by negligence or for breach of any mandatory implied terms.



## H.B. Fuller

**H.B. Fuller Company**

info-europe@hbfuller.com  
www.hbfuller.com/  
eimea/contact-us