

**Product Information:**

# Wood Glue D4 Outdoor 440

**All-round 2-component wood glue for outdoor use**

**General description and application:**

Wood Glue D4 Outdoor 440 is a 2-component PVAc wood adhesive, which can achieve two levels of water resistance, depending on the type of hardener added.

When adding Light Hardener 922, the adhesive will be D4 water resistant according to EN204/205, and suitable for assembling of frame wood, garden furniture, furniture for humid environments etc.

Without adding hardener, the adhesive is D2, suitable for most indoor wood bonding.



**Physical / chemical properties:**

**Adhesive:**

- Type: Water based PVAc dispersion
- Colour: White
- Consistency: Liquid
- Solids content: Approx. 50 %
- Viscosity: Approx. 18,000 cP, Brookfield RVT, 20 rpm, 23 °C
- Specific Gravity: Approx. 1.1 kg/L
- Shelf life: Minimum 12 months in unopened packaging, if stored cool. Protect from frost.
- Packaging:

Item no	Size
2191	5 kg can
2192	10 kg bucket
2195	20 kg bucket

**Cured adhesive:**

- Colour: Matt transparent
- Resistance:
  - Temperature: Up to approx. 80 °C, depending on strength requirements. The adhesive is thermoplastic, and strength will decrease with rising temperature.
  - Water: Class D2 (EN204/205), without adding hardener.  
Class D4 (EN204/205), when adding 5% light Hardener 922.



## Directions for use:

- Preparation:** Both surfaces must be clean, dry and well adjusted. Optimum results are obtained with newly worked wood. When bonding some types of wood (e.g. oak), a test should be carried out, as certain substances in the wood may react with the adhesive, causing discolorations.
- Mixing ratio:** By weight: 100 parts adhesive + 5 parts hardener  
By volume: 100 parts adhesive + 4 parts hardener  
Pot life is approx. 7 days. After mixing, the viscosity may be reduced, which could influence the use of the adhesive for some applications.
- Application:** The adhesive is applied on one surface. When bonding hard woods, two-sided application is recommended, as well as increasing assembly time and pressing time.
- Moisture content of wood:** 7 - 15 %.
- Application temperature:** Minimum +3 °C. max. 90 °C. The temperature includes wood, adhesive and room.
- Film thickness:** Approx. 120 - 200 g/m<sup>2</sup>.
- Open assembly time:** Maximum 7 minutes on pine at 20 °C and 50 % RH. When joining, the adhesive must still be wet.  
If assembly time is "closed", it can be increased 1 - 2 minutes.  
  
Assembly time is increased with two-sided application, hard wood, lower temperature and higher humidity of air and wood.  
Assembly time is reduced at higher temperatures and lower humidity of air and wood.
- Pressure:** For lamination 6 - 10 kg/cm<sup>2</sup>, otherwise approx. 1 - 5 kg/cm<sup>2</sup>. In case of tensions in the wood a higher pressure should be applied.
- Pressing time:** Minimum 30 minutes on pine with approx. 9 % wood moisture at 20 °C. With no hardener added, pressing time is min. 10 minutes.  
Pressure time should be increased for hard woods, two-sided application, lower temperature, higher humidity of the air and higher moisture content of the wood.  
Pressing time can be reduced when heating the wood or using warm press.  
  
Full strength is usually obtained after 24 hours at 20 °C and full water resistance is obtained after approx. 7 days.
- After treatment:** Adhesive joints which are exposed to the weather, must always be treated with an efficiently covering surface treatment.
- Cleaning:** Adhesive on the skin is removed with water and soap. Tools are cleaned with water while the adhesive is still wet. Cured adhesive can only be dissolved with ethanol.
- All stated times are meant as a guideline. Sufficient tests should be carried out to establish final working conditions.**

## Health and safety:

For further information concerning safety, refer to Safety Data Sheet.

The information and data contained in this Product Information sheet are based on extensive laboratory testing and our practical experiences and are meant for helping the user to find optimum working methods. As the conditions at the user are beyond our control, we make no warranties concerning the results, achieved by the products. The information's in this Product Information sheet are typical values, intended as a guideline. They should not be regarded as product specifications. Please also refer to our standard sales conditions and terms of delivery.

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Woodglue D4 Outdoor 440 - Date of issue 01.11.2018 - Page 2/2