

ONEBOND PU MULTIFIBERS

Description

OneBond PU MULTIFIBERS is a fast curing, fiber-filled polyurethane based assembly adhesive, ideal for structural bonding of wooden parts in construction, renovation, and furniture production industries. Open-time is 5 to 10 minutes.

Features and Benefits

- Gun grade: very easy to apply and tool. Application temperature: 10°C - 35°C.
- Thixotropic product can be applied in vertical and horizontal.
- Tack free time in 5 to 10 minutes and fast assembly time of 1 hours.
- Can be sanded and painted after 30 minutes.
- Bonds well all types of wood including plywood.
- Suitable for porous and non-porous substrates
- Can fill gaps up to 2 mm.
- Not suitable for PE, PP and bitumen or other plasticizer releasing materials such as EPDM, neoprene, butyl, etc.
- Temperature resistance of -30°C to +110°C
- Excellent weathering and aging resistance to humidity and temperature.
- Odor and solvent free

Uncured properties⁽¹⁾

	Unit	
Appearance	White	
Odor	Light	
Viscosity @+25°C	Pa.s	Paste

1: These are typical values and should not be construed as specifications.

Typical curing properties⁽¹⁾⁽²⁾⁽³⁾

	Unit	
Curing mechanism	Moisture	
Tack-free time	Minutes	5 – 10
Curing through volume (24 hours)	mm	2

1: These are typical values and should not be construed as specifications.

2: Curing conditions: +25°C and 50% Room Humidity

3: Curing can be accelerated at higher temperature and humidity

ONEBOND PU MULTIFIBERS

Typical proprieties of the cured material⁽¹⁾⁽²⁾⁽³⁾

	Unit	
Lap Shear Strength (Beech wood), 24h	N/mm ²	4 ± 0,5
Lap Shear Strength (Beech wood), 7 days	N/mm ²	5 ± 0,5

1: These are typical values and should not be construed as specifications.

2: Curing conditions: +23°C and 50% Room Humidity

3: Curing can be accelerated at higher temperature and humidity

Surface preparation

Use gloves to minimize skin contact with the adhesive. Do not use solvents or thinners to clean the hands. Put on the safety glasses. The long-term bonding strength depends on the preparation of the bonded surfaces. Remove all surface contaminants such as oxide, oil, grease, water, glycol, dust any other contaminants that can affect adhesion with a suitable cleaner. Remove the particles with a technical wipe. To achieve a smooth finish, protect the surface with tape.

Handling

300 ml cartridges should be stored indoors, ideally at 20°C. The viscosity of the product increases as the temperature decreases. Do not apply the product at temperatures below 5°C. For a smooth application the product should be conditioned at 20°C prior to use. Do not apply the product when the surface temperature exceeds 50°C.

Adhesive application using a 300 ml cartridge: (1) Pierce the cartridge membrane and screw the nozzle to the cartridge outlet. (2) Begin dispensing the adhesive. Note: 300 ml cartridges can be applied with manual guns with a thrust ratio of at least 18:1. The excess of uncured adhesive can be cleaned with a clean cloth moistened with acetone or solvent. Cured adhesives must be mechanically removed.

Application

Adhesive curing is dependent on humidity, temperature and on the adhesive bead geometry. The skin time of the adhesive is the time after an adhesive is applied during which it reacts with the substrate and with ambient humidity. Many factors affect the skin time, including temperature, room humidity and the amount of adhesive applied: the hardening reaction speed increases with the temperature, with the substrate and room humidity. It is critical to bond the parts together before the adhesive has 'skinned over'. The adhesive layer in contact with the substrate should always have the same viscosity and appearance as the unused product inside the cartridge.

ONEBOND PU MULTIFIBERS

The adhesive must be applied in vertical beads on the substrate (to one side only). Evenly apply the glue by using an adhesive spreader with a serrated edge. Assemble both parts together and apply constant pressure over the bond line for at least 30 minutes. To achieve an optimum bond strength the final adhesive thickness should be lower than 1 millimeter. Note: It is recommended to test adhesion prior to product application. OneBond PU MULTIFIBERS is a moisture-cured adhesive: it is key that the adhesive bead is exposed to room humidity to cure completely.

OneBond PU MULTIFIBERS can be painted, once a thick skin is formed. OneBond Polyurethane based adhesives and sealants can be painted with common paint technologies, however due to the number of technologies available, it is always recommended to carry out compatibility tests.

Storage⁽¹⁾

	Unit	
Recommended temperature	°C	5 – 25
Storage stability / Shelf life	Months	12

1: Stored in the original sealed containers at the recommended temperature in a dry place.

Packaging

Cartridge 300 ml – 12 pieces per box

Safety Considerations

Safety Data Sheets (SDS) are available from ONEBOND. SDS include information regarding the physical, health, and environmental health hazards, safety precautions, for products handling, storing and disposal. SDS are available in the language of the country or area of destination and may include locally applicable health and safety regulations. SDS are updated regularly and can be downloaded from www.onebondadhesives.com. ONEBOND encourages users to review the up-to-date SDS before handling or using any product.

Customer Notice

The data contained herein, obtained in Onebond laboratories, are given for information only; if specifics are required, please contact Onebond Technical Department. Onebond ensures abiding quality of supplied products according to its

ONEBOND PU MULTIFIBERS

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