

LOCTITE HB X102 PURBOND EU

for the Production of European Building Products January 2022

This technical data sheet is only applicable in accordance with application instructions for face bonding LOCTITE HB X PURBOND EU line.

PRODUCT DESCRIPTION

LOCTITE HB X102 PURBOND EU provides the following product characteristics:

Technology	Polyurethane
Product Type	Assembly Glue
Application	Structural Engineered Wood Products
Components	One-component
Basis	Isocyanate prepolymer
Condition	Solvent-free, formaldehyde-free
Appearance	Beige, liquid, (after curing: wood tone, solid)
Cure	Air humidity and moisture in the wood

Application Areas

- Manufacturing of engineered wood products in service classes 1, 2 and 3 according to EN 1995-1-1
- Face bonding, e.g. CLT, glued laminated timber, glued solid timber and edge bonds



Wood species (approved according to EN 15425)

Face bonding with LOCTITE PR 3105 PURBOND primer:

- European spruce (*Picea abies*)
- European silver fir (*Abies alba*)
- Scotch pine (*Pinus sylvestris*)

Product Properties

- Strong, non-brittle adhesive film
- Resistant to weak alkalis, acids and solvents
- Good flow properties
- Fluorescent
- Classified as EN 15425 I 90 GP 0,3 w adhesive
- Approved and registered to various certificates and registrations, see section Certifications & Registrations
- Fiber free

Technical Data

LOCTITE HB X102 PURBOND EU:

Solid Content, %:	
free from fiber and abrasive fillers	100
Viscosity, Brookfield - 20 °C, mPa.s :	
Spindle 6, speed 20 rpm, after 1 min	20,000 to 32,000

Typical Properties

Density, g/cm ³	~1.15
Maximal assembly time, minutes	10
20°C / 65% relative air humidity (RH) and a wood moisture content of 12%	

Minimal press time at 20°C and 12% wood surface moisture content:	
- of up to 0.1 mm, minutes	25
- of 0.1 to 0.3 mm, minutes	90

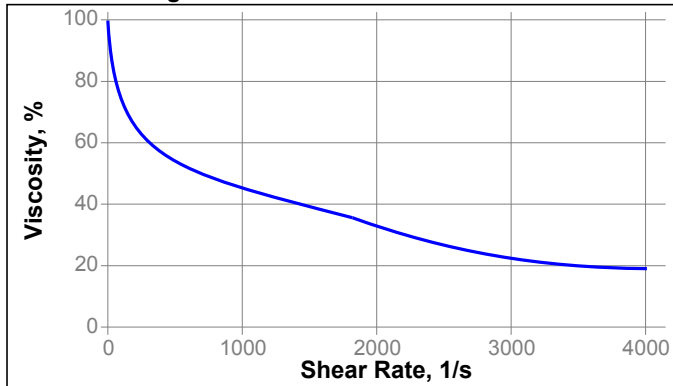
Time to reach final bonding strength at 20°C with 65% RH and a wood moisture content of 12 %:	
- glue line thickness of max. 0.1 mm, hours	1
- glue line thickness of max. 0.3 mm, hours	3

Please follow the detailed application instructions for face bonding of LOCTITE HB X PURBOND EU line.

The above times depend on production parameters (moisture/temperature of wood and air; glue line thickness), application type and system. An optimization in accordance with Henkel Engineered Wood is possible.

Slight foaming of the adhesive during hardening is caused by the curing reaction and is normal.

The adhesive shows shear thinning behaviour. Please see an exemplary viscosity – shear rate – relationship in the graph below.

Shear Thinning:**DIRECTIONS OF USE****Preliminary Statement**

Prior to application it is necessary to read the **Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

Application

For safe use of LOCTITE HB X102 PURBOND EU, please refer to this document as well as the specific Application Instructions for face bonding LOCTITE HB X PURBOND EU line. A suitable quality control system is recommended.

Protection and cleaning**SAFETY PRECAUTIONS**

The use of protective gloves is highly recommended. Best practice makes gloves and safety glasses mandatory when handling the adhesive or any chemicals associated with the manufacturing process.

CLEANING

Prior to bringing a plant into initial operation, Henkel recommends the use of release agents to prevent adhesive adhering to equipment and tools, e.g. LOCTITE RELEASE AGENT PURBOND. Henkel can make recommendations upon request, but all release agents should be appropriate for the adhesive and materials to which they are applied.

CERTIFICATIONS & REGISTRATIONS

Classified as **EN 15425 I 90 GP 0,3 w** according to standard EN 15425:2017, confirmed by MPA University Stuttgart. The adhesive can be used for the manufacture of glued laminated timber according to EN 14080:2013 and cross laminated timber (CLT) according to EN 16351:2021 or EAD 130005-00-0304.

Fulfills the requirements as a Type I adhesive in accordance with AS/NZS **4364:2010** and is suitable for Service Class 3 applications.

Formaldehyde Classification:

JAIA (Japan Adhesive Industry Association) Independent Control Standard against Indoor Air Pollution.

Register Number: JAIA-013007

GreenGuard

LOCTITE HB X102 PURBOND EU is certified for low chemical emissions according to UL.com/GG UL 2818 and holds the GreenGuard Gold certificate number 157242-420.

STORAGE

Store in the original tightly closed packaging in a cool, dry place.

Shelf life

Shelf-life (in unopened original packaging), months 3

Classification

Please refer to the corresponding **safety data sheets** for details on:

Hazardous Information
Transport Regulations
Safety Regulations

ADDITIONAL INFORMATION**Disclaimer**

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

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Reference 0.2