MAPEI

# Lignobond

## Two-component epoxy-polyurethane adhesive for wood flooring, totally water and solvent free

### WHERE TO USE
For installing all types of wood flooring.

### Some application examples
**Lignobond** is used for installing wood strips, boards and wood of all kinds over cement screeds, heated floors, asphalt, metal, existing wood flooring, ceramic tile and marble floor tiles.
It is especially recommended over **Mapecem**, **Mapecem Pronto**, **Topcem** and **Topcem Pronto** screeds.

### TECHNICAL CHARACTERISTICS
**Lignobond** is a two-component totally water and solvent-free adhesive composed of part A, an epoxy-polyurethane polymer, and part B special hardener.

Careful mixing of the two parts forms an evenly coloured paste that is easy to apply with a notched trowel.

After hardening (approx. 24 hours at room temperature) which occurs solely through chemical reaction and without shrinkage, **Lignobond** is transformed into a flexible film that is resistant to moisture, heat, and atmospheric agents and is highly adhesive to nearly all materials commonly used in construction.

**Lignobond** is unaffected by mould and bacteria.

**Lignobond** is especially recommended for installing moisture-sensitive wood on substrates with little absorbency.

### RECOMMENDATIONS
- Do not use on screeds where there may be possible rising damp (always insert a vapour-proof membrane between the ground and the screed).
- Do not use in open areas without doors or closings.
- Do not use if the screed is not dry or when the moisture content is higher than that recommended by the wood manufacturer.
- Do not use on asphalt that has not completely cured (minimum 15 to 20 days).
- Do not use if the wood does not have a moisture content comparable to that of its surroundings.
- Do not use at temperatures below +10°C or above +30°C.
- Do not use where walls and ceilings are not thoroughly dry.

### APPLICATION PROCEDURE
#### Preparing the substrate
Substrates must be thoroughly dry, level, resistant to compression and tensile stress, free of dust, loose particles, paint, wax, oil, rust, and traces of gypsum. The moisture content must be as prescribed by the wood manufacturer.
Check moisture throughout the entire thickness of the substrate, using a carbide or electric hygrometer, keeping in mind that the latter gives only approximate values. To create rapid drying shrinkage compensated screeds use one of the following MAPEI special hydraulic binders: **Mapecem**, which permits the installation of timber flooring after 24 hours or **Topcem** which permits installation after 4 days.

Lignobond

*Mixing Lignobond paste and liquid*

*Installing wood strips with Lignobond*

*Installing coloured wood strips over existing parquet with Lignobond*

Alternatively use **Mapecem Pronto** or **Topcem Pronto**, ready-to-use pre-blended mortars; wood flooring can be installed after 24 hours or 4 days respectively.
Screeds over layers of insulation or screeds laid directly onto earth must be constructed over a vapour barrier to prevent rising damp.
Hot melted asphalt surfaces must have the suitable consistancy to carry the required loads. Installation cannot be carried out on bitumen based surfaces with a low melting point or that can bleed oil.
Insufficiently solid concrete surfaces must be removed or, where possible, consolidated with **Prosfas**, **Primer EP**, **Primer MF**, **Eco Prim PU 1K** or **Primer PU60** (see relevant technical data sheets).
Surface cracks or crazing in concrete surfaces must be repaired with **Eporip** or **Eporip Turbo** (see technical data sheet).
Concrete surfaces that are uneven or not sufficiently level must be levelled with **Ultraplan**, or **Nivorapid**, **Fiberplan** or **Ultraplan Maxi** levelling compounds in a thickness of at least 3 mm, after having applied **Primer G** diluted with water 1:2/3.
For installing over existing flooring (cement tiles, ceramic tiles, marble) clean carefully with caustic soda or other suitable product and rinse with water. Wait until dry before installing.
To improve the adhesion, apply **Primer KL** on a dry surface.

### Mixing the adhesive

**Lignobond**'s two parts are pre-dosed:
- part A: 9 parts by weight;
- part B: 1 part by weight.

Mixing must be done with mechanical mixer to obtain an evenly coloured paste.
Setting time and pot life are closely related to room temperature (see technical data sheet).
Mix one can at a time of part A plus part B.
Never install at temperatures below +10°C because setting will be delayed.

**The Part A to Part B ratio is fixed.**

Any change in dosage will interfere with reticulation of the product.

### Applying the adhesive

Apply **Lignobond** to the substrate with a notched trowel using the MAPEI notched trowel for wood. The open time of **Lignobond** is approx. 1 hour under normal temperature conditions and application must be timed accordingly.

### Installing the timber or wood

The wood to be installed must be stored in a dry, sheltered area not subject to vapour condensation and must be insulated from the ground.
Before installing, check that the moisture level in the wood and the ambient humidity are as prescribed by the manufacturer.
Press the wood firmly into the wet adhesive to ensure good contact. Do not install the wood flush with walls, but leave an expansion joint of approximately 1 cm around the perimeter, columns, and protruding wall sections. Do not bond edges of wood strips together (follow the wood manufacturer's recommendations).

### SET TO LIGHT FOOT TRAFFIC

Floors are set to light foot traffic after approx. 24 hours.

### POLISHING

Polishing can be carried out after a minimum of 3 days, depending on the season. However, it is recommended to wait 7-10 days so the wood can settle better.

### READY FOR USE

Floors are ready for use after approx. 3 days.

### Cleaning

**Lignobond** can be removed from wood, tools and clothing with toluene, alcohol or **Cleaner L** before it has hardened. After it has hardened, remove mechanically or with **Pulicol**.

### COVERAGE

Depending on the type of substrate and using a MAPEI trowel for wood, coverage is 1,0 to 1,5 kg/m$^2$.

### Colours

Brown and beige.

### PACKAGING

10 kg and 5 kg buckets.

### STORAGE

Stored in a normal environment in its original unopened packaging, **Lignobond** is stable for 24 months.

### SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

**Lignobond** part A is irritant when in direct contact with the eyes and skin. The product contains epoxy resins with low molecular weight. Cross sensitisation to other epoxies is possible.

**Lignobond** part B is highly harmful when in severe exposure and is a serious risk to health if inhaled, swallowed or in contact with skin. The product is corrosive and if in contact with skin causes burns. Repeated or continuous contact may cause sensitisation in those who are allergic.
Avoid all contact with skin and eyes by always wearing gloves when using and protective goggles while mixing the two parts.
In case of contact with the skin, rinse thoroughly with soap and water, and if there are any signs of irritation, consult a doctor. In case of contact with eyes, wash with running water and consult an eye specialist. Use only in well ventilated areas.

**Lignobond** is dangerous for aquatic life: do not dispose the product to the environment.

PRODUCT FOR PROFESSIONAL USE.

### WARNING

*Although the technical details and recommendations contained in this data sheet correspond to the best of our knowledge and experience, all the above information must, in every case be taken as merely indicative and subject to confirmation after long-term practical applications; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.*

## TECHNICAL DATA (typical values)

| PRODUCT IDENTIFICATION | | |
|---|---|---|
| **Consistency:** | **part A** | **part B** |
| | thick paste | fluid paste |
| **Colour:** | light brown<br>dark brown | brown |
| **Density (g/cm³):** | 1.5 | 1.0 |
| **Dry solids content (%):** | 100 | 100 |
| **Brookfield viscosity (mPa·s):** | 200,000<br>(7 rotor, 10 rpm) | 400<br>(2 rotor, 20 rpm) |
| **Storage:** | **Lignobond** is stable for 24 months in original unopened packaging | |
| **Hazard classification according to EC 99/45:** | irritant | corrosive, dangerous for the environment.<br>Before using refer to the "Safety instructions for the preparation and application" paragraph and the information on the packing and Safety Data Sheet |
| **Customs class:** | 3909 50 00 | |
| **APPLICATION DATA at +23°C - 50% R.H.** | | |
| **Mix Ratio:** | A : B = 90 : 10 | |
| **Brookfield viscosity of the mix (mPa·s):** | 100,000<br>(rotor 7, 10 rpm) | |
| **Density of the mix (kg/m³):** | 1400 | |
| **Pot life of mix:** | 40-50 minutes | |
| **Application temperature range:** | from +10°C to +30°C | |
| **Open time:** | 1 hour | |
| **Adjustability time:** | 2 hours | |
| **Initial setting:** | 5 hours | |
| **Final setting:** | 6 hours | |
| **Set to light foot traffic:** | after 24 hours | |
| **Polishing:** | after approx. 3 days (depending on temperature) | |
| **FINAL PERFORMANCE DATA** | | |
| **Bonding wood-concrete (N/mm²):** | > 3 (concrete failure) | |
| **Bonding wood-ceramic (N/mm²):** | > 3 | |
| **Resistance to ageing:** | excellent | |
| **Resistance to solvents and oils:** | good | |
| **Resistance to acids and alkalis:** | good | |
| **Resistance to temperature:** | from –40°C to +100°C | |
| **Flexibility:** | yes | |

*Installing wood strips over floorboards with Lignobond*

*An example of an installation of a wooden floor on existing ceramic tiles with Lignobond*

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| Setting time of Lignobond according to temperature | | | | | | |
|---|---|---|---|---|---|---|
| Temperature in °C | 30 | 25 | 20 | 15 | 10 | 5 |
| Time in hours | 3 | 5 | 7 | 11 | 18 | 34 |

*An example of an installation of a wooden floor with Lignobond - The Kremlin - Moscow - Russia*

*An example of an installation of a wooden flooring with Lignobond - Buccinasco Audi Show Room - Milan (Italy)*

**All relevant references of the product are available upon reques**

*An example of an installation of a wooden floor with Lignobond - Palazzo Versace Hotel - Gold Coast - Queensland (Australia)*




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