Bona Quantum

PREMIUM PARQUET ADHESIVE

Powerful titanium crosslinking

All-round adhesive that provides high performance for the installation of most wood flooring types.

Bona Quantum represents the next generation of silane-based adhesives, featuring our revolutionary Titanium Technology. This formula delivers outstanding strength that evolves over time - providing the ideal strength once set. It offers the advantages of both hard-elastic and hard adhesives in a single product. *Significantly reduces and slows down water vapour transmission

- Titanium cross-linking technology
- Built-in moisture barrier*
- All-round usage
- High shear strength

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TECHNICAL DATA

Product type / base:	Silane-modified prepolymer
Colour:	Oak tone
DIN EN ISO 17178:	Hard-Elastic
Giscode:	RS10
Open time:	approx. 40 min.**
Curing time:	Light foot traffic after approx. 4–6 hrs.** Full cure 24 hrs.** Application of surface treatments should only proceed after full cure. **at 20 °C and 55 % RH.
Cleaning agents:	Bona Cleaning Wipes, acetone. Hardened adhesive can only be removed mechanically.
Shelf life:	Bucket: 12 months / Tubular bag: 24 months from date of production in unopened original bucket/tubular bag.
Storage/Transport:	The temperature must not fall below +5 °C or exceed +25 °C during storage and transport. Store in a dry, well-ventilated place. Protect from frost.
Disposal:	Waste and emptied containers should be handled in accordance with local regulations.
Pack size:	15 kg bucket & 6 kg and 9 kg tubular bags.
Certificates/approvals:	EMICODE: EC 1PLUS French VOC: A+ DIBt: Z-155.10-2

Additional detailed information is noted in the appropriate Safety Data Sheet.

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SUBFLOOR PREPARATION

The subfloor must be even, dry, clean, free from any cracks or residues and be physically sound. The subfloor must comply with local regulations with regard to flatness and surface strength and should be slightly textured to achieve the best adhesion.
Separating layers, weak surface layers, laitance and contaminants must be mechanically removed.
The moisture content of the subfloor must be measured in accordance with local standards.
All surfaces must be thoroughly vacuum cleaned prior to adhesive application.
A primer is not normally required, however, to improve adhesion or to strengthen a weak top layer of the subfloor, an appropriate Bona primer should be used, refer to the relevant product technical data sheet. When there is a need to supress residual construction moisture, a moisture barrier primer such as Bona R540 or Bona R590 may be used (refer to the relevant product TDS for instructions). Alternatively, Bona Quantum can be used to suppress residual construction moisture, without the need for an additional moisture barrier primer, provided it is applied correctly (see details in "Application Instructions" below). If in doubt, contact Bona technical support.

This product is described as a “moisture barrier” in line with common industry terminology. It functions by reducing and slowing water vapour transmission and is not designed to fully block vapour movement. It cannot be considered equivalent to a dedicated structural damp proof membrane.

Note: Bona Quantum is suitable for adhering relevantly approved wood flooring for use in conjunction with underfloor heating. Such subfloors must be slowly and gradually dried and warmed in accordance with the heating-up protocol. During installation and for 3 days after, the screed temperature must not exceed 25 °C. Always follow the flooring manufacturer's instructions.

SUITABLE SUBSTRATES

- Cementitious screed (CT) according to EN 13813
- Floors levelled with levelling compounds (at least 2 mm thick, resistant against plasticiser migration)
- Calcium sulfate screed (CA) according to EN 13813
- New chipboards (P4-P7) or OSB 2 – OSB 4 boards, screwed tightly
- Other dry and sound subfloors, such as gypsum fibre boards.
- Mastic asphalt screed (AS) according to EN 13813 - contact Bona technical support for application details.
- Can also be used on deep cleaned metal surfaces - contact Bona technical support for application details.
- Bona underlays, Bona U300, Bona U310, Bona U340 & Bona U350.
- Concrete

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APPLICATION INSTRUCTIONS

Flooring must be correctly acclimatised so that it is stable with the installation environment. Depending on the species and type of flooring this can typically vary between 3 and 14 days, always follow the flooring manufacturer's guidance. A stable indoor environment must be maintained in the long term to reduce the risk of expansion and contraction and associated issues.

Before using the adhesive, the indoor air temperature should be a minimum of 18 °C, floor temperature: min. 15 °C, max. 20 °C (including with underfloor heating); max. 70 % RH. The adhesive must be acclimatised to room temperature. After opening the bucket, remove the protective foil and any hardened adhesive at the edges. The adhesive should be applied evenly using a notched trowel appropriate to the flooring being laid (see guidance in the next section).

The parquet should be laid into the adhesive and pressed down firmly during the open time of approx. 40 minutes. If the adhesive on the subfloor develops a skin, remove it and apply new adhesive. If any adhesive is forced through the joints onto the face of the boards, remove it carefully, as it may affect the adhesion of any subsequent oil or lacquer finish. Any adhesive on prefinished surfaces should be removed with Bona Cleaning Wipes.

Bona Quantum can be used for directly bonding dimensionally stable parquet types on cementitious substrates (excluding cement-based levelling compounds or gypsum based materials/screeds) with residual construction moisture content exceeding the normally accepted level, without the need for an additional moisture barrier primer, **provided the concrete/screed surface is free of all visible dampness**. It cannot prevent other issues originating from the top, sides or ends of flooring (water leaks, puddles, hydrostatic head, etc.) nor does it eliminate other moisture or installation-related issues such as improper acclimation of flooring, the effects of jobsite temperature and humidity or the lack of a functioning structural damp proof membrane within the subfloor build-up. In addition to being visibly dry, the subfloor must meet the usual requirements for parquet installation; in particular, it must be sufficiently cured (≥ 28 days), clean, sound, level and properly prepared. For heated floor constructions, the multi-stage heating protocol must have been implemented. To ensure secure and robust bonding, the adhesive must be applied with a Bona 1500 G (B16) notched trowel (application rate between 1500 and 1750 g/m², depending on the roughness of the subfloor), and the parquet must be laid into the adhesive within the open time. When applying the adhesive, ensure complete wetting of both the subfloor and the parquet. Skirting boards must be moisture-resistant or ventilated. After installation, the parquet must not be covered with vapour-tight or highly vapour-retardant materials until the subfloor is completely dry. This includes, in particular, vapour-tight films, e.g., made of PE (painter's plastic sheeting), certain mats & carpets (with dense, rubber-like backing), or TetraPak® films. You must provide the following trades and the end user with appropriate instructions.

Bona Quantum cures by reacting with moisture. To prevent premature curing from moisture vapour in the air, promptly replace the foil on the surface of the adhesive and the lid on the container during use.

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CONSUMPTION

8–10 mm Mosaic parquet
Bona Trowel 850F or 850G
(TKB B3/B6, ISO 6076 12T/11T)
Usage: approximately 850 g/m²

2 layered prefinished parquet
Bona Trowel 1000F or 1000G
(TKB B8/B10, ISO 6076 14T/16T)
Usage: approximately 1000 g/m²

22 mm strip flooring
23 mm industrial parquet
3 layered prefinished parquet
Bona Trowel 1250F or Bona 1250G
(TKB B11/13, ISO 6076 16T/20T)
Usage: approximately 1250 g/m²

Solid planks
Bona Trowel 1500F or Bona 1500G
(TKB B14/16, ISO 6076 22T/24T)
Usage: approximately 1500 g/m²

Use as a moisture barrier
Bona Trowel 1500G
(TKB B16, ISO 6076 24T)
Usage: 1500 – 1750 g/m² (depending on surface roughness)

(F = fine, G = coarse)
Use a fine trowel for small pieces of wood and/or smooth subfloors, and a coarse trowel for large pieces of wood and/or rougher surfaces.

If using the Bona OptiSpread system, please refer to the respective machine manual for application guidelines.

The information in this document and all other advice and recommendations that we provide to help and assist the applicator are based on previous experience and extensive testing but makes no claim to be complete. Because of the wide range of possible uses and conditions of application of our products, we do not relieve users from the need to carry out their own trials or to seek technical advice from Bona before use. Bona can only guarantee its products and not the construction as a whole. Observe recommendations from flooring manufacturer and the provisions of relevant standards.