Technical Data Sheet

Bona R540

1C-Polyurethane Primer

Bona R540 is a reactive 1-component polyurethane primer, used on absorbent and non absorbent sub floors before the use of Bona silane or polyurethane parquet adhesives. The product can also be used for damp proofing cement screeds and concrete floors up to 4 CM% or 85 % rH. Furthermore it can be used for a slightly reinforcement of weak subfloors.

- Multipurpose usage
- Easy to apply
- Very good adhesion to all kinds of sub floors
- High penetration
- Reinforcement properties
- Moisture barrier
- Suited for underfloor heating

Technical Data

Base:	Polyisocyanat-Prepolymer,
Color:	transparent brown
Viscosity:	thin liquid
Density:	1.14 g/cm³
Giscode:	RU1
EMICODE:	EC1 Plus
Cleaners:	Bona Cleaning Wipes, Bona S100, Acetone, Ethanol, Alcohol. After hardening it can only be removed mechanically.
Coverage:	Approx. 100-150 g/m² (primer)
Approx.	250-350 g/m² (damp proofing up to 4 CM/% or 85 % rH)
Drying time:	Between 1 and 24 hours, depending on the following adhesive system (see application)
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.
Shelf life:	12 months from date of production in original unopened canister
Pack size:	6 kg canisters

Additional detailed information is noted in the Safety Data Sheet.

Subfloor Preparation

The substrate must in general be even, totally dry, clean, free from cracks and physically sound. The surface should also be slightly textured. Cementitious screeds must be sanded, and vacuum cleaned thoroughly. If applicable, it must meet the requirements of local standards or codes of practice. Any separating or weak layers such like loose old adhesives, levelling compounds, paints, grease etc. which can disturb the adhesion of the following applications, must be completely removed by using appropriate methods (e.g. Bona FlexiSand with Diamond segments). Vacuum the substrate afterwards.

Suitable Subfloors

Suitable substrates (also in association with underfloor heating) are:

- Cementitious screed (CT) according to EN 13813
- Calcium sulfate screed (CA) according to EN 13813 ONLY AS PRIMER
- Concrete
- New chipboards (P4-P7) or OSB 2 – OSB 4 boards, screwed tightly
- Mastic asphalt screed (AS) according to EN 13813, properly sanded
- Dry screed material

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- Old and new dry and sound sub floors
- Bona levelling compounds can be applied by using Bona D520 as intermediate primer

Processing

Before using the primer, the following climatic conditions must be met (values for Central Europe): Air temperature: min. 18°C, floor temperature: min. 15°C (with under floor heating max. 20°C), R.H: max 65%. High rH levels and temperature will accelerate the curing, low rH levels and temperatures decelerate it. Foaming of Bona R540 must be avoided by the controlled application of the primer. Avoid a too high consumption.

Application as a primer
The primer itself must, if necessary, be brought to the right temperature. Apply the primer evenly to the substrate using a brush or mohair roller. Avoid the formation of pools. Allow to dry to a transparent film

The following curing tiems must be respected.
Bona R777/R778: 1-2 hrs.
Bona R848/R848T/Quantum/Quantum T: 24 hrs.
Bona Titan: 6 hrs.

Usage as a moisture barrier*
Can be used as a moisture barrier up to 4 CM% or 85 % rH when residual moisture is present in cementitious substrates, by applying two coats of Bona R540 within 24 hours. Apply the first coat as described above. Wait till the surface is set to foot traffic, usually 1-2 hrs. Afterwards the second layer must be applied. Let the second coat cure sufficiently before following applications will be carried out (See above)

*moisture reading of the subfloor must be carried out in correlation with local standards and codes of practice (e.g. ASTM F 2170 Test Method, BS 8201:2011, TKB KRL method, CM-measurement, etc.)

Reinforcement
By the application of Bona R540 (1-2 coats) slightly weak surfaces of screeds or concrete floors can be strengthen up, due to the good penetration properties of Bona R540. The reinforcement effect needs to be evaluated per individual case.

Subsequent application of a Bona levelling compound
If the floor must be levelled it is possible to apply a Bona levelling compound on Bona R540. Therefore, an intermediate application of Bona D520 is required. Allow Bona R540 to set for at least 2 hrs. before Bona D520 can be applied. Please refer for detailed processing information TDS of Bona D520. Note: a two-coat application of Bona R540 is as well possible.

Consumption

Primer: approx. 100-150 g/m²
Moisture barrier: approx. 250-350 g/m² in two coats.

Drying time

Approx. 1 to 24 hours depending on the adhesive system to be used afterwards.

Bona takes only responsibility for the delivered product, no responsibility can be taken for the total installed product. If in doubt, conduct a test or a trial. Observe also other Bona product datasheets.

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