

# Technical Information

## Phonotherm® 200 RG 700 – 6 / 7 / 8 / 9 mm



Phonotherm® 200 is a CFC-, HCFC- and formaldehyde-free polyurethane product. Including the addition of auxiliary materials this material is pressed into high quality boards. Phonotherm® 200 is much more than a construction material. Due to its manifold capabilities in many different areas, a functional material was developed from the construction material that convinces through extraordinary properties. Phonotherm® 200 is moisture-resistant and has excellent thermal insulation properties. Phonotherm® 200 is also resistant to chemicals, easy to work and can be laminated and combined with other materials. Phonotherm® 200 functional material can be e. g. machined by milling, sanding, or drilling, also gluing of the boards is possible.

BOSIG is member of Institut Bauen und Umwelt e. V. The Institut Bauen und Umwelt e. V has issued an EPD (Environmental Product Declaration according to the standard DIN EN 15804 for Phonotherm 200. In this EPD, the life cycle of Phonotherm 200 is illustrated on the basis of structural-physical, as well as energy and emission relevant information. EPDs are basis for building certification, e. g. for DGNB-building certification.



Reference: D09-1346 / 25.11.2011



Product Declaration - DGNB Neubauversion Büro- und Verwaltungsgebäude (NBV09)

Manufacturer **BOSIG Baukunststoffe GmbH**

Product Name **PHONOTHERM® 200**



### Product Rating

- The product fulfills the requirements of action level 1 to 4 and contributes to achieve 10 (of max. 10) criterion points within Criterion 06 'Risks for the regional environment'.

Reference: L09-1346 / 25.11.2011



Produkt Declaration - LEED® 2009 New Construction And Major Renovations NC & CS

Manufacturer **BOSIG Baukunststoffe GmbH**

Product Name **PHONOTHERM® 200**



### Product Rating

- The product contains 50% recycled materials and contribute to achieve LEED credits within MR Credit 4.

### Dimensions:

Standard sizes – length x width: 2400 x 1500 mm  
3600 x 1500 mm  
Standard Thicknesses: 6 mm, 7 mm, 8 mm, 9 mm

Special sizes and laminations are possible in principle. We can tailor the boards to suit most of your needs. This would require a detailed discussion and drawings, if possible. Please contact us for information.

**Technical data:**

<b>Phonotherm® 200 RG 700 – 6 / 7 / 8 / 9 mm</b>		
Material	CFC-, HCFC- and formaldehyde-free polyurethane construction material	
Raw density	700 ± 100 kg / m <sup>3</sup>	ac. to DIN EN 1602
Bending strength width between supports: 15 · material thickness	approx. 8 N / mm <sup>2</sup>	Testing on the basis of DIN EN 310
Modulus of elasticity width between supports: 15 · material thickness	approx. 400 N / mm <sup>2</sup>	Testing on the basis of DIN EN 310
Compression strength average at 10 % compression, individual values may fall below the admissible value for up to 10 %	approx. 8000 kPa	ac. to DIN EN 826
Thickness swell after 24 h in water	approx. 1 %	Internal
Water absorption after 24 h in water	approx. 4 %	Internal
Moisture depending change in length	± 2 mm / m	Internal
Water vapour diffusion value μ	approx. 25	ac. to DIN 52 615
Residual moisture	2 – 4 %	intern
Fire behaviour	building material class B2 flammable drop free	ac. to DIN 4102
	Klasse E	ac. to DIN EN 13501-1
Thickness tolerance, sanded	± 0,2 mm	
applicable in the temperature range	– 40 °C to + 80 °C	
Resistance against ageing	resistance against putrefaction and non-rotting	

**Advantages of Phonotherm 200:**

- economical
- moisture-resistant
- does not age or rot
- resists roots
- good thermal insulation properties
- temperature-resistant
- very good resistance to chemicals
- biologically and ecologically harmless, resistant against fungi and rot
- easy to work

**Testing:**

Testing laboratory	Number	Test	Result
MPA Dresden	Nr. 05-6-3301-01.1	Building material class according to DIN 4102, part 1	meets requirements of building material class B2
	Nr. 2012-B-5592/03	Classification of fire behaviour according to DIN EN 13501-1	Class E
BTU Cottbus	Nr. 08-051-201	Determination of Elongation on the basis of DIN 51045-1	See test report
MPA Eberswalde	Nr. 31/17/3177/03-1	Determination and evaluation of VOC and formaldehyde emission according to DIBT principles for health evaluation of building products	See test report

**Environmental protection:** The created waste is 100% recyclable. Phonotherm® 200 is free of formaldehydes and does not emit physiologically significant quantities of chemical substances.

**Processing:** Use conventional tungsten-carbide tipped woodworking machinery for working. In principle, we recommend an extraction system. The dust created during machining (sawing, drilling, grinding, milling) is physiologically harmless and not fibrous. Pre-drill before screwing or use self-drill screws.

**Conditioning:**

Before processing, (sawing, drilling, grinding, milling), conditioning of Phonotherm® 200 is recommended. Good conditioning can be achieved at indoor climate, that is approximate 18 – 25 °C and 50 – 65 % relative humidity. Due to the possible different dimensional changes, Phonotherm® 200 is to be conditioned before processing, so that the material can be adjusted to ambience in moisture contents and material temperature. Duration of conditioning shall last for minimum 3 days. In case of insufficient conditioning, Phonotherm® 200 may deform and warp.

Please observe: The material Phonotherm® 200 is prone to changes in atmospheric humidity and temperature. We cannot guarantee an absolutely evenness without any wave formation of our sheets. Also the dimensions of sheets and cuts made from Phonotherm® 200 will change depending on atmospheric humidity and temperature.

This characteristic of Phonotherm® 200 is to be accepted without regard of the intended use of the cuts and sheets. Claims concerning this characteristic cannot be accepted.

**Gluing:** Gluing of butt joints, cuts and strips is simple, using single or two component polyurethane adhesives for instance.

Please refer to the processing notes of the particular adhesive manufacturer. On request, you also may gladly obtain appropriate adhesives from us. Corresponding technical information with detailed processing notes you also may obtain on request.

**Storage and transport:** Phonotherm® 200 should be stored dry and on a flat surface. It is not subject to the Ordinance on Hazardous Substances or other storage and transport regulations.

**Attention! Important Note:**

Above information are based on best present knowledge of current technology, but do not guarantee faultless processing of our products. The information is based on practical results of our tests, but is not binding and does not constitute warranties of characteristics in terms of Federal Supreme Court jurisdiction. Our information does not constitute a legally binding assurance of certain properties or suitability for a specific purpose. Supplementary information by our specialists are merely recommendations, for which no liability is accepted.

Due to the many possible applications of our products, we recommend subjecting the project to a thorough suitability test on original materials before release for further application.

Since our information are non-binding we do not warranty their correctness. For this reason we accept no liability for possible improper processing based on information submitted by our employees.

This technical data sheet replaces all previous versions and is valid until a new version is issued, or until Dec. 31, 2024. Please request the latest version after Jan. 01, 2025.

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