

## Teknisk datablad

# Phonotherm® 200

### High quality

Phonotherm® 200 boards are made of high quality CFC-HCFC and formaldehyde-free polyurethane hard foams. In a special composition including the addition of auxiliary materials this material is pressed into high quality boards. Phonotherm® 200 is a functional material that convinces through extraordinary properties. Phonotherm® 200 is moisture resistant and has excellent thermal insulation properties.

Its resistance to moisture makes Phonotherm® 200 very durable and prevents it from rotting. This renders Phonotherm® 200 far superior to conventional wooden boards such as press boards and MDF boards, yet has similar machining properties. Phonotherm® 200 can be machined using normal carbide tools and can even be milled in fine detail without danger of break-out. Phonotherm® 200 is also resistant to chemicals, easy to work and can be laminated and combined with other materials.

Phonotherm 200		RG 550	RG 700
<b>Material</b>		<b>CFC- HCFC and formaldehyde-free polyurethane hard foam material</b>	
Raw density	dep. on thickness	550±50 kg/m <sup>3</sup>	700±50 kg/m <sup>3</sup>
Bending strength*	dep. on thickness	>5 N/mm <sup>2</sup>	>7 N/mm <sup>2</sup>
Modules of elasticity*	dep. on thickness	>450 N/mm <sup>2</sup>	>450 N/mm <sup>2</sup>
Screw withdrawal resistance*	dep. on thickness	>600 N	>750 N
Thickness swell* after 24 h in water	Intern	approx. 1%	approx. 1%
Water absorption* after 24 h in water	Intern	approx. 5%	approx. 5%
Dimensional change* after 24 h in water	Intern	approx. 0,46%	approx. 0,4%
Thermal conductivity $\lambda_{10}$	EN 12667/DIN52612	approx. 0,076 W/(mK)	approx. 0,10 W/(mK)
Fire behavior	DIN 4102	Building material class B2 non-flammable drop free Class E	Building material class B2 non-flammable drop free Class E
Residual moisture	DIN EN 13501-1	approx. 5%	approx. 5%
Thickness tolerance, not sanded		±0,4mm	±0,4mm
Thickness tolerance, sanded		±0,2mm	±0,2mm
Linear termisk udvidelseskoefficient:			
-middelværdi mellem 23 °C-100 °C	m/(m x °C)	40x10 <sup>-6</sup>	40x10 <sup>-6</sup>
-middelværdi mellem 23 °C-150 °C	m/(m x °C)	70x10 <sup>-6</sup>	70x10 <sup>-6</sup>
Max. allowable service temperature			
-for short period	°C	250	250
-continuously	°C	100	100
Min. allowable service temperature	°C	-50	-50
Resistance against ageing		resistance against putrefaction and non-rotting	

\*values measured for a 15 mm board thickness



### Dimensions:

Standard sizes: 2400 x 1350 mm  
3600 x 1350 mm

Thicknesses: RG550 kg/m<sup>3</sup> from 15mm to 60mm  
RG700 kg/m<sup>3</sup> from 10mm to 50mm

Other sizes and thicknesses are available on request.

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.

### The advantages:

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

### 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, grinding, milling) is physiologically harmless and not fibrous. Pre-drill before screwing or use self-drill screws. Phonotherm® 200 can be screwed, the material can be milled, ground and drilled and can be glued together.

### Examples of applications:

- Inserts for refrigerated trailers
- Core material for wet doors
- Core material for bathroom furniture
- Profiles for facade structures
- Core material for work tops for kitchens, bathrooms, clean rooms, canteens and laboratories
- Re-reinforcement of sandwich panels for mounting of fixture, screws etc.
- Core material for lockers in public baths
- Insulator for marine decks

### Gluing:

Gluing of butt joints of boards, cuts and strips is simple, using 2-component polyurethane adhesives for instance. Single or 2 component polyurethane adhesives are suitable for gluing of surfaces. For assistance please enquire about your specific application.

### Storage and transport:

Phonotherm® 200 should be stored dry and on a flat surface. It is not subject to the ordinance on hazardous or other storage and transport regulations.

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