

SINTEF Building and Infrastructure confirms that

RCH P6 22 mm Fast Floor

has been found to be fit for use in Norway and to meet the provisions regarding product documentation given in the regulation relating to the marketing of products for construction works (DOK) and regulations on technical requirements for building works (TEK), with the properties, fields of application and conditions for use as stated in this document

1. Holder of the approval

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2. Product description

RCH P6 22 mm Fast Floor are particleboards made of wooden chips, from hardwood and softwood, bonded together under high temperature and pressure with urea formaldehyde adhesive. The boards are made of three layers, using larger chips in the middle layer and finer material in the surface layers.

The boards are in accordance with technical class P6 as specified in EN 13986:2004+A1:2015 and EN 312.

Standard nominal thickness is 22 mm, with tongue and groove on all four sides as shown in fig. 1. Standard dimensions are 600 mm x 1800 mm and 600 mm x 2400 mm as installed.

Declared tolerances on dimension are as follows, measured according to EN 324-1 and EN 324-2:

Thickness: ± 0.3 mm
 Length and width: ± 2.0 mm
 Edge straightness: ≤ 1.5 mm/m
 Squareness: ≤ 2.0 mm/m

Mean density is $690 \text{ kg/m}^3 \pm 20 \text{ kg/m}^3$ measured according to EN 323. The boards are delivered from the factory with a moisture content of 9 ± 3 % weight, measured according to EN 322.

3. Fields of application

RCH P6 22 mm Fast Floor satisfies the requirements for internal use as structural components in dry conditions in accordance with EN 13986.

The boards may be used as subfloor on floor joists in residential buildings and other buildings with imposed floor load category A or B according to EN 1991-1-1.

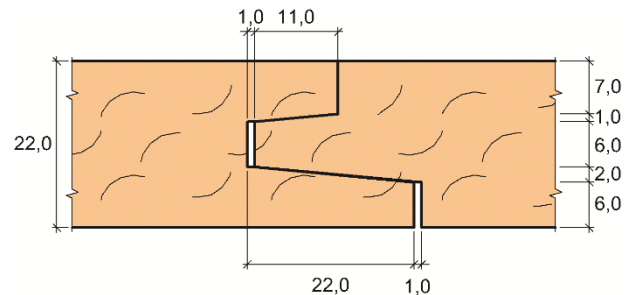


Fig. 1
 RCH P6 22 mm Fast Floor flooring. Tongue and groove profiles.

The boards are not moisture resistant, and may only be used in service class 1 according to EN 1995-1-1. Special conditions for application is given in clause 6.

4. Properties

Strength and stiffness

Table 1 shows the characteristic strength and stiffness. Structural design properties for calculating load-bearing structures are given in EN 12369-1.

Table 1
 Minimum characteristic strength and stiffness for RCH P6 22 mm Fast Floor*

Property	Nominal. board thickness 22 mm	Test method
Bending strength	16 N/mm ²	EN 310
Modulus of elasticity in bending	2550 N/mm ²	
Internal bond	0,40 N/mm ²	EN 319

* The values represent the 5 % percentile values as specified in EN 312

Reaction to fire

Reaction to fire classification according to EN 13501-1 is D-s2,d0, and D_{FL}-s1 as flooring. The classification is valid for boards mounted on substrates with at least class A1 or A2-s1,d0 with minimum density 10 kg/m³, or with classification D-s2,d2 and minimum density 400 kg/m³. This means that the boards can be mounted on for example mineral wool or timber beams and boards. The boards can be mounted with or without a ventilated or closed cavity behind.

Properties related to moisture

- The glue in the board material is not moisture resistant and the boards shall not be exposed to free water. In permanent service the moisture content of the surrounding air must not exceed 65 % RH for longer periods.
- Dimensional changes in the plane of the boards when the moisture content determined according to EN 318 change from equilibrium at 35 % RH to equilibrium at 85 % RH may be taken as approx. 2,5 mm/m.
- The water vapour resistance according to EN 13986 is $\mu = 50$ in dry conditions. This corresponds to $s_d = 1,10$ m (equivalent air layer thickness) for 22 mm thick boards.
- Thickness swelling after 24 hours water immersion is ≤ 15 % measured in accordance with EN 317.
- The boards are not treated against growth of mould or fungi.

Thermal properties

Design thermal conductivity is $\lambda = 0,13$ W/mK according to EN 13986.

5. Environmental aspects*Substances hazardous to health and environment*

The product contains no hazardous substances with priority in quantities that pose any increased risk for human health and environment. Chemicals with priority include CMR, PBT or vPvB substances.

Effect on indoor climate

The product is evaluated according to SINTEF Technical Approval – Health and Environmental Requirements version 09.05.2022. The product is not regarded as emitting any particles, gases or radiation that have a perceptible impact on the indoor climate, or to have any significant impact on health. The product meets the requirements in BREEAM-NOR v6.0, Emissions from building products according to Hea 02 Indoor air quality.

Waste disposal / Recycling

The product shall be sorted as waste. The product shall be delivered to an authorized waste treatment plant for energy recovery.

Environmental declaration

No environmental declaration (EPD) has been worked out for the product.

6. Special conditions for use and installation*Span*

The boards shall be installed on floor joists or sleepers spaced maximum c/c 600 mm.

The maximum imposed floor load must then be in category B according to EN 1991-1-1 with national annex NA, i.e. maximum 3,0 kN/m² uniformly distributed load and 2,0 kN concentrated load.

Installation

The boards shall always be installed with the long side perpendicular to the floor joists, and the tongue and groove joints shall be glued with an adhesive designed for subfloor installation. It is also recommended to always apply glue between the boards and the floor joists.

End joints shall be staggered, and always supported by floor joists or sleepers.

The boards shall be fixed to the joists with approx. 50 mm long particleboard screws, using four screws at the ends and three screws at intermediate supports. The screw heads shall be countersunk 2-3 mm.

It must be taken into account that some swelling in the plane of the boards will take place after installation.

The use and installation of RCH P6 22 mm Fast Floor, including fastening, shall otherwise be in conformity with the recommendations in SINTEF Building Research Design Guide no. 522.861.

Surface treatment

The boards shall be cleaned and the moisture content shall be maximum 10 % before floor coverings are installed. Before installation of thin floor coverings surface damages must be repaired with a filler compound, and edge toppings must be sanded. Countersunk screw heads shall not be filled with filler compound.

Subfloor for ceramic tiles

When used as an underlay for ceramic tiles the joist spacing should be maximum c/c 300 mm. Alternatively the boards may be installed on joists spaced c/c 600 mm provided a double layer of boards is used, or by applying of a screed material which gives a verified equivalent floor stiffness.

Transport and storage

The boards shall be transported and stored under dry conditions.

7. Factory production control

RCH P6 22 mm Fast Floor is produced by KRONOSPAN Riga in Riga, Latvia.

The holder of the approval is responsible for the factory production control in order to ensure that the product is produced in accordance with the preconditions applying to this approval.

The manufacturing of the product is subject to continuous surveillance of the factory production control in accordance with the certification of factory production control by Fraunhofer-Institute for Wood Research, certificate no. 0765-CPR-0945, and the contract regarding SINTEF Technical Approval.

8. Basis for the approval

The approval is primarily based on the verification of product properties for the certification of RCH P6 22 mm Fast Floor according to EN 13986, and initial type testing as floor sheathing according to EN 12871 as verified in the following report:

- Danish Technological Institute. Test Report no. 435137 dated 2011-06-22

9. Marking

RCH P6 22 mm Fast Floor shall be CE-marked according to the provisions of EN 13986:2004+A1:2015, including name of product and manufacturer, technical class, formaldehyde class and a production number or date of production. SINTEF Technical Approval mark no. 20371 may also be used.



Approval mark

10. Liability

The holder/manufacturer has sole product responsibility according to existing law. Claims resulting from the use of the product cannot be brought against SINTEF beyond the provisions of Norwegian Standard NS 8402

for SINTEF Building and Infrastructure

Marius Kvalvik
Approval Manager