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MORE THAN JUST A PRETTY FACE™

GUIDANCE FOR INSTALLATION - FLOORING

Structural Floor Decking on Joists in Load Category A

(Load category A. Areas for domestic and residential activities).

November 13th, 2008

PANELES ARAUCO RADIATA PINE SOFTWOOD PLYWOOD (PARA)

CE EN 13986

1073-CPD-801 EN 13986, Flooring, EN 636-1S, EN 636-2 S, EN 314-2 class 3, E1, D-s2, d0, D_{fl}-s1. EN 635-3 grade I or II or III in combination. (T&G panels sanded or unsanded).

The following clauses shall be met when using the panels as structural floor decking on joists:

Handling

1. The panels can be used in service class 1, when the floor is designed and executed in such a way that the moisture content of the panels does not exceed 12 percent for any significant period of time.
2. Each panel shall be marked on the back and shall have tongue and groove (T&G) at the long edges of the panels.
3. The panels shall be stacked flat at transport and storage to avoid sagging or other distortion.
4. The panels shall before and after installation be protected against rain and soiling.
5. Before installation, the panels shall be conditioned in the service class for the intended end-use:
   - End use as flooring in service class 1, the recommended moisture content of the panels is 8-10%.

Installation

6. Panels shall be supported and fixed as follows:

Thickness Grade	Maximum Centre to Centre Span	Ringshank (*) Maximum Fastener Spacing and Minimum Fastener Dimensions		
		Minimum Ringshank Dimension	Centres of the Intermediate Supporting Joists and Noggings	Centres at the Perimeter of the Panels
15 mm	405 mm	24/50	300 mm	150 mm
18 mm	610 mm	29/50		
21 mm	600 mm	40/50		

Notes: (*) Or other improved nails and screws.

7. The panels shall be installed in a closed house.
8. The panels shall be installed with the marking downward, so that the flooring is installed on the unmarked side.
9. The T&G panels shall be laid across the joists with both short edges supported on a joist or another edge support, and during installation be glued together (tongue and groove) and be fastened (optional glued) to the supports. All perimeter and cut edges shall be supported on joists or noggings. Glue should be applied which is gap filling, elastic and applicable for the purpose on basis of the guidelines of the manufacturer of the glue.
10. At the perimeter of the floor and pipe lead-in etc. there should be an expansion gap of at least 10 mm to absorb movements due to moisture changes. At floor lengths longer than 10 m one or more intermediate expansion gaps shall be made to absorb movements. The width of the expansion gap should at least be 1.5 mm per metre run of the length of the floor.

Deflection (Stiffness)

11. Stiffness for the calculation of deflection under concentrated point load for panels without floor covering for the maximum spans given under 6. according to EN 12871 for Service class 1 are:

Thickness in mm	Maximum span in mm	R_m in N/mm for Service class 1
15	405	485
18	610	408
21	600	499

Floor Covering

12. Floor coverings shall be installed according to the guidelines of the manufacturer of the coverings, this includes furthermore surface requirements (EN 635-3 grade - sanded or unsanded).

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GUIDANCE FOR INSTALLATION - ROOFING

Structural Roof Decking on Joists in Load Category H

(Load category H. Roofs that are not accessible except for maintenance, repair and cleaning. Normal maintenance repair and cleaning include painting and minor repairs).

November 13th, 2008

PANELES ARAUCO RADIATA PINE SOFTWOOD PLYWOOD (PARA)

CE EN 13986

1073-CPD-801 EN 13986, Roofing, EN 636-1S, EN 636-2 S, EN 314-2 class 3, E1, D-s2, d0. EN 635-3 grade I or II or III in combination. (T&G panels sanded or unsanded).

The following clauses shall be met when using the panels as structural roof decking on joists:

Handling

1. The panels can be used for structural roof decking:
   - In service class 1 for 'warm roofing'.
   - In service class 2 for ventilated 'cold roofing', when the roof is designed and executed in such a way that the moisture content of the panels does not exceed 18 percent for any significant period of time and never exceeds 20 percent.
2. Each panel shall be marked on the back and shall have tongue and groove (T&G) at the long edges of the panels.
3. The panels shall be stacked flat at transport and storage to avoid sagging or other distortion.
4. The panels shall before and after installation be protected against rain and soiling.
5. Before installation, the panels shall be conditioned in the service class for the intended end-use:
   - End-use as 'warm roofing', the recommended moisture content of the panels is 9-12%.
   - End-use as ventilated 'cold roofing', the recommended moisture content of the panels is 12-14%.

Installation

6. At a pitched roof (slope > 15°) use scaffoldings for installation.
7. Panels shall be supported and fixed as follows:

Thickness	Maximum Centre to Centre Span for Flat Roofing. (**)	Ringshank (*) Maximum Fastener Spacing and Minimum Fastener Dimensions		
		Minimum Ringshank Dimension	Centres of the Intermediate Supporting Joists and Noggings	Centres at the Perimeter of the Panels
12 mm	610 mm	24/50	300 mm	150 mm
15 mm	815 mm			
18 mm	1220 mm	29/50		
21 mm	1200 mm	40/50		

Notes: (*) Or other improved nails and screws. / (**) The span can be increased with increased slope, see EN 12871.

8. The panels shall be installed with the marking downwards.
9. The T&G panels shall be laid across the joists with both short edges supported on a joist or another edge support. All perimeter and cut edges shall be supported on joists or noggings.
10. The short edge joints of panels shall be staggered. To take any increase of the panel moisture content in service into account, an expansion gap between the joints shall be incorporated:
    - End use as 'warm roofing' a gap of 1-2 mm is recommended.
    - End use as ventilated 'cold roofing' a gap of 2-3 mm is recommended.

Deflection (Stiffness)

11. Stiffness for the calculation of deflection under concentrated point load for panels without roof covering for the maximum spans given under 7. according to EN 12871 for Service class 1 are:

Thickness in mm	Maximum span in mm	R_m in N/mm for Service class 1
12	610	203
15	815	193
18	1220	133
21	1200	144

Roof Covering

12. Roof covering shall be installed according to the guidelines of the manufacturer of the covering, this includes furthermore surface requirements (EN 635-3 grade - sanded or unsanded).

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