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| **Specification text** UNILIN QUALIRACK SOLIDFIX |

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| Material group | Wood-based panels (EN13986:2004+A1:2015 Annex a table a.4) | 01/01/2022 |
| Material type | grooved chipboard |
| CE class | P4 |
| AVCP class | **2+** |
| Range of applications | **Internal use as structural component in dry environment** |  |

1. **Material description**

Pre-grooved reinforcement strips, sawn in small formats and finished with a pre-milled groove, for local reinforcement of wall linings and partition walls. The groove ensures that the reinforcement strip is sunk into the support structure. The fine chipboard top layer provides an even surface without splinters and high screw-tightness.   
  
The reinforcement strip is a building board that belongs to product class P4 (standard reference EN 312): boards for load-bearing applications for use in dry conditions, service class 1, where the range of relative humidity is limited to 30-65 % and can be used in biological hazard classes 1 and 2 of EN 335-3. These construction boards are therefore in the same area of application as OSB/3 (EN 300), plywood (EN 636-2).

1. **Material specifications**
   1. Dimensions

Standard width: 595 mm   
Standard height: 200 - 300 - 400 - 600 - 2400 mm   
Standard thickness: 18 mm   
Groove width: 20 mm   
Groove depth: 7 mm   
Other panel thicknesses are available on request

Chart

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* 1. Sustainability

The reinforcement strips consist of 100 % recovered wood (ISO14021:2016) of which more than 90 % is recycled wood. The reinforcement strips are available with FSC or PEFC labels.

1. **Technical details**
   1. General

The reinforcement strips are suitable for use in dry environments, service class 1, mainly as reinforcement panels in dry construction, partition walls and wall linings. The product characteristics comply with the chipboard P4 standard as determined in accordance with European Standard EN312:

Table

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* 1. Screw withdrawal strength

The determination of the withdrawal force required to pull a fastener out of a board is defined by the test standard EN 320. A steel screw (thread 4.2 mm and pitch 1.4 mm) is inserted perpendicularly to a depth of 15 mm in pre-drilled pilot holes.   
  
The 5-percentile value of screw withdrawal strength of the reinforcement strips is 1250 N in the surface.

* 1. Vertical eccentric load, according to TV-233 (WTCB)

The reinforcement bands are tested and compatible with load class a, according to TV-233 (Technical information for light interior walls - WTCB). Vertical eccentric load tests have been carried out and meet resistance to structural and functional failure class a.

During structural failure, a load of 1000N is applied for 24 hours at 0.3m from the wall surface. This is done by means of squares that are 0.5m apart and fastened at two points that are 0.15m apart on a vertical axis. No collapse or other dangerous damage occurs. During functional failure, a load of 500N is applied 0.3m from the wall surface. This is again done by means of squares that are 0.5m apart and fastened at two points that are 0.15m apart on a vertical axis. The maximum deflection is 5mm.

Diagram

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Figure 2. Vertical eccentric load test arrangement according to TV-233 (WTCB)