

UPM ProFi Floor

Technical Specification

Material

UPM ProFi Floor is an environmentally innovative composite material made in Finland that combines the best qualities of plastic and engineered fibers which fall as surplus by-products in self-adhesive label manufacture and processing. The material is virtually lignin free and contains no harmful chemicals.

Product design

The tile is designed by Artek Studio and made by injection moulding in Finland. Installation is very easy onto flat surfaces with UPM ProFi X-Clips. The underside design of UPM ProFi Floor allows electrical cables to be run unexposed inside the tiles.

UPM ProFi Floor is designed for indoor applications such as covered balconies and winter gardens where water does not remain under the tiles.

Physical and mechanical properties of UPM ProFi Floor

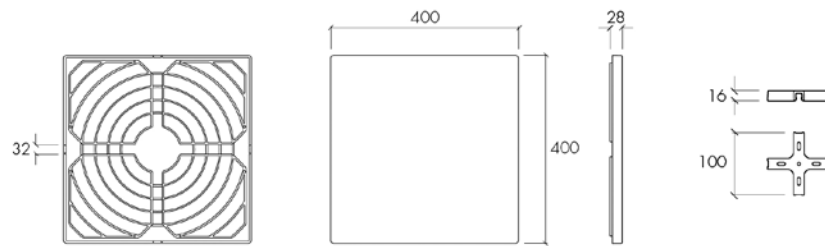
Property	Test method	Value
Density, g/cm ³	EN ISO 1183*	1,1
Surface Hardness (Brinell), N/mm ²	EN 1534*	50
Wear resistance (Taber 1000 r), mm	EN 438-2	0,13
Friction (wet/dry)	EN 15676 (S55)	39/83 (wet/dry) → low slip potential
	FSC 2000	0,83/0,76 (dry/wet) → very safe
Fire Class	EN 13501-1	E
Thermal Expansion Coefficient, 1/°C	ISO 11359-2*	6,5 x 10 ⁻⁵
Water Absorption (24 h), %	EN 317 *	< 2,5
Swelling, thickness (24 h), %	EN 317*	< 1

* Based on CEN/TS 15534 wood plastic composites (WPC).

The values above are characteristic values from quality tests and therefore not for strength calculations in the serviceability state.



Product dimensions: 400 mm x 400 mm x 28 mm (tolerances +/- 2 mm); weight: 2,2 kg/tile



Please note in humid conditions the dimension of the tiles may change slightly.

Thermal expansion

Like all polymer composites UPM ProFi Floor will expand and contract with changes in temperature. Therefore a rough guide is to leave 5 mm wide gaps between the last tile and the wall or other fixed surfaces.

Practical example: At a temperature of material about 20 °C during installation, in summer one floor tile will expand around 1 mm as the tile warms up to 60 °C (based on a Thermal Expansion Coefficient of $6,5 \times 10^{-5} 1/^\circ\text{C}$). If there is a large area to be laid with ProFi tiles, surrounded by walls or other fixed surfaces, bigger gaps between the last tile and the wall are needed: e.g. 2 cm gaps per 10 m wide areas.

Colour and weathering

Unlike conventional WPC and timber, UPM ProFi Floor is virtually lignin free, and will therefore not suffer from the usual "greying". Instead, over the years, the colours will fade slightly if exposed to sunlight. (This weathering may be accelerated in high altitude locations and other areas with strong UV.) Cleaning e.g. with warm water and a soft brush will help to maintain the colour. Such cleaning should be carried out periodically to ensure that surface is free of dirt and debris and that the space between the tiles remains clear. The UPM floor tile system should only be installed in sheltered areas where water does not remain under the tiles. UPM's unique high friction closed surface is very resistant to stains. If cleaned immediately after a spill, water is usually enough to remove all traces. Otherwise warm water, a household detergent and gentle brushing will work in most cases. For more detailed cleaning and maintenance instructions, please visit www.upmprofi.com.

Illustration of typical weathering of UPM ProFi Floor in European climate in three years.



Environment

UPM ProFi Floor contains up to 50% recycled fibres and polymers, is PVC free and non-toxic. The tiles are manufactured in Finland and are covered with a 5 year guarantee. As there is no other significant re-cycling process for the label surplus material, the manufacture of UPM ProFi material actually reduces land-fill and waste incineration. The only added plastic is clean polypropylene. Production waste and off-cuts can be recycled into new UPM ProFi Floor. The material can also be disposed of with normal household waste for example to be converted into energy. Floor tiles do not require paint or stains, therefore eliminating pollutants associated with those types of products.

