

UPM ProFi Piazza Technical Specification

MATERIAL UPM ProFi Piazza is an environmentally innovative composite material made in Germany that combines the best qualities of plastic and engineered fibers which fall as surplus by-products in self-adhesive label manufacture and processing. UPM ProFi Piazza is lignin free and therefore offers better colour durability than traditional WPC.

The material contains no harmful chemicals. Compared to traditional WPC boards, the closed surface is also more resistant to oil spills and stains.

PROFILE Solid profile made by extrusion technology

SURFACE High performance polymer cap surface.

Piazza S1-25: Natural looking hardwood embossing with bottom scallops.

Piazza S2-25: Natural looking hardwood embossing on one side and a brushed, fine grooved surface on the other.

PHYSICAL AND MECHANICAL

Property	Test method	Piazza S1-25	Piazza S2-25
Linear Mass	prEN 15534-1	3.3 kg/m	4.0 kg/m
Bending Strength, N/mm ²	EN 310*	11	19
Friction (wet / dry)	Pendulum EN 15676	> 36	> 36
Thermal Expansion Coefficient, 1/°C	ISO 11359-2*	4.0 x 10 ⁻⁵	4.0 x 10 ⁻⁵
Water Absorption (24 h), %	EN 317*	< 2.5	< 2.5
Swelling, thickness (24 h), %	EN 317*	< 1	< 1
Flexural modulus, N/mm ²	EN 310*	1100	1250

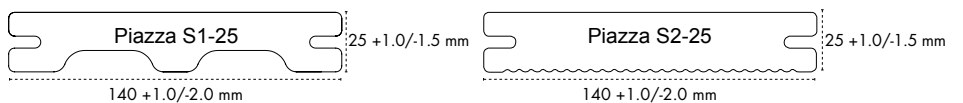
*Based on CEN/TS 15534 wood plastic composites (WPC).

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

PROFILE DIMENSIONS

25 mm x 140 mm; length 4 m & 5 m

UPM ProFi Piazza will expand and contract with changes in temperature.



THERMAL EXPANSION

UPM ProFi Piazza will expand and contract with changes in temperature.

The following table shows this effect over different temperature changes. The temperature change listed relates to the temperature of Piazza material, not the air temperature.

Numeric example of the thermal length expansion according to length of UPM ProFi Piazza decking board:

Temperature change of board (ΔT)	mm expansion/shrinkage			
	1 m board	2 m board	3 m board	4 m board
10°C	1	1	1	2
20°C	1	1	2	3
30°C	1	2	4	5
40°C	2	3	5	6
50°C	2	4	6	8
60°C	2	5	7	10

Based on an expansion coefficient of $4 \times 10^{-5} 1/^\circ\text{C}$.

PRACTICAL EXAMPLE

At a temperature of material about 20 °C during installation or cutting, in summer a 4 m board will expand around 6 mm as the board warms up to 60 °C ($\Delta T = 40^\circ$). This needs to be considered during cutting and installation.

SCRATCHES OR SURFACE ABRASIONS

UPM ProFi Piazza is designed to withstand normal decking use. However superficial marks and scratches may be caused if furniture or other heavy objects are dragged over the deck. These will not affect the structural performance of the deck and will become less visible over time. No attempt should be made to sand the deck surface.

COLOUR AND WEATHERING

Unlike conventional WPC and timber decks, UPM ProFi Piazza is virtually lignin free, and will therefore not suffer from the usual "greying". Instead, over the years, the colours will fade slightly. (This weathering may be accelerated in high altitude locations and other areas with strong UV.) Cleaning with a jet hose or a normal hose and 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 under the deck remains clear and able to drain water away effectively. UPM's unique high friction closed surface is very resistant to moisture absorption and therefore 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.

ENVIRONMENT

UPM ProFi Piazza has a high recycled content (around 75%), is non-toxic, PVC-free and recyclable. As there is no other significant re-cycling process for the label surplus material, the manufacture of UPM ProFi products actually reduce land-fill and waste incineration. Recycled polyethylene (PE) is being used in the core. The only added plastic is clean polyethylene in the surface. Production waste and off-cuts can be recycled into new UPM ProFi Piazza. The material can also be disposed of with normal household waste for example to be converted into energy. Decking boards do not require paint or stains, therefore eliminating pollutants associated with those types of products.

