

"THOR" outdoor decking elements

PRODUCT DESCRIPTION

eco-Profil composite profiles consist of poly-olefine (polyethylene, polypropylene), re-claimed wood fibre, UV-inhibited pigment systems and selected process additives. The recovered wood fibre (60%) utilized in eco-Profil is compounded with plastic into a rigid board with various applications, mainly outdoors.

eco-Profil products are manufactured to exacting, reproducible specifications. They exhibit exceptional resistance to corrosive substances, oil and fuels, insects, fungus, salt spray, and other environmental stresses. The composite does not absorb moisture, therefore it will not rot, splinter or crack.

eco-Profil products are manufactured in several dimensional sizes, shapes, and colours. Surface treated terrace planks (decking board) are available in two popular colours: Bahama Brown and Ash Grey.

eco-Profil products have excellent weathering resistance; however, the colour will change slightly over the service life of the product. The profile requires no waterproofing, painting, staining, or similar maintenance, even when used in exterior applications. However, if requested, the product can be stained or painted with water-borne (preferred) or solvent systems.

BASIC USES

eco-Profil products are used in many conventional wood lumber applications, and are often the product of choice for exterior applications where weathering resistance and low maintenance are required.

Used in both residential and municipal applications, eco-Profil products are cost effective alternatives for ground contact and animal contact and all wet, corrosive, and environmentally harsh conditions.



LIMITATIONS

This type of lumber product has less rigidity (modulus of elasticity) but higher ultimate load (modulus of rupture) than wood lumber. However, it is not recommended for use as a true structural member at this time. Examples of applications that are inappropriate would be load bearing walls, deck framing, and floor joists. It is recommended that an engineering study be performed prior to use of eco-Profil.

eco-Profil products can be fabricated and installed with the same tools used to work wood lumber. The product will cut and drill very cleanly, as there is no grain to split or chip. It is not necessary to pre-drill when fastening. Decking products may be screwed used high quality fasteners. eco-Profil double grooved deck material is installed with a proprietary hidden fastening system that allows installation from the top of the deck.

ECO-PROFIL "THOR" TYPICAL PROPERTIES

Composition	poly-olefine (PE, PP) and wood fibre
Density	950 - 1050 kg/m ³
Dimensions	width 143mm (+/-1mm), thickness 23.5mm (+/- 0.5mm)
Available standard lengths (other lengths on demand)	2.4, 3.6, 4.8 metres
Flexural modulus (stiffness)	up to 5 000 MPa
Coefficient of thermal expansion	< 0.02 m/m °C
Water absorption	<2% wt
Surface finish	brushed

WEATHERING PROCESS

All decking material and wood-composite products are expected to incur some weathering over time. During the first 12 weeks of exposure to the elements, eco-Profil will weather, typically to a slightly darker shade of colour. From that moment onwards, virtually no further change in colour can be observed. eco-Profil elements are designed and manufactured to keep their mechanical stability over time. The products for outdoor applications are stabilised so as to keep from plastic degrading, even when exposed to severe weather conditions.



INSTALLATION

When utilizing eco-Profil products for decking or flooring, careful attention must be paid to joist spacing; joist spans will depend upon the load on the board. Please refer to the table below, for recommended joist spacing.

Maximal joist spacing and fastener configurations for eco-Profil decking				
Deck Board Member	Residential use (300 kg/m ² uniform load)	Commercial use (500 kg/m ² uniform load)	Industrial use (800 kg/m ² uniform load)	Recommended fastening system
eco-Profil	40 cm (16in)	35 cm (14in)	30 cm (12in)	Direct screw, or eco-Profil fasteners

eco-Profil developed a simple and economical fastener system for easily fixing your deck. If preferred however, simple screws can be used to fix your deck. Please foresee for the thermal expansion of the board. In any case, stainless steel screws are recommended.

A sufficient gap should be kept between the boards in longitudinal direction to allow for thermal expansion.

CLEANING

An eco-Profil deck can easily be cleaned using brush and mild cleaning agents. Solvents are not recommended for use on eco-Profil. If needed, hypochloric solutions ("eau de Javel") can be used for thorough cleaning. Alternatively, a high pressure water jet (up to 80 bars at 20cm distance) can be used. Please make sure to spray along the wood grain direction. In the unlikely case that oily or corrosive products would leave remaining stains onto your precious eco-Profil product, the surface can be manually sanded with rough sandpaper (#80 grain). Please, again, sand in the wood grain direction.