

INSTALLATION MANUAL

ECO CLADDING PROFILE



IMPORTANT INFORMATION ABOUT THE PRODUCT

• ECO TERAFEST® cladding profile is made of the Wood-Plastic Composite (abbreviated WPC) material, which is composed of wood flour and HDPE. For example, it is designed to create wall coverings for sheds or garages, or ventilated exterior structures mounted on a wooden or metal base grid.

• WPC is not a construction material, so it cannot be used as a support structure. When installing other accessories on the cladding (e.g. lighting, gutter downspouts, etc...) they must not only be secured to the ECO cladding profiles.

• Store ECO TERAFEST® cladding profiles prior to installation on a dry, flat and ventilated surface so that the visible (brushed) side of the profile is protected from direct sunlight and to prevent an uneven matured color.

• Do not treat the surface of ECO TERAFEST® cladding profiles with coating, paints, varnishes, waxes, oils or other similar products not recommended by the manufacturer. When cleaning, avoid using solvents and thinners!

• TERAFEST® products are designed primarily for outdoor use. Exposure to sunlight and rain eases their maintenance; consult their possible interior use with the supplier.

• In regards to partially roofed cladding water dust stains may occur due to the effects of rain, which do not affect the functionality of the cladding.

• The influence of temperature on ECO cladding profiles and TERAFEST® moldings results in volume changes (stretching and shrinking). Therefore observe the required expansion spaces.

• TERAFEST® is a natural product, it may have slight differences in color and shadows that evoke the natural look of wood, but do not detract from the quality of the product and its durability. It is recommended to check the color of the cladding profiles and mix them before the installation to achieve the natural look of the cladding. It is also recommended to order whole cladding at once.

• When working with WPC material you can use the same tools as when working with hardwood (drills, saws, sanders, tape measures, levels, screwdriver with bits and drills, etc.)

• The cladding profile is made of flammable material (class D-s1) – always use this material in compliance with fire safety regulations and other building standards, best after the approval of an authorized building engineer or designer.

TECHNICAL INFORMATION

- Dimensions: L 3100mm x W 150mm x H 14mm
- The weight of a single profile: 6,51kg
- The weight of 1m² of the ECO profile: about 15kg
- The covering width of a single profile: 143mm (+-2mm)
- Fire reaction class according to ČSN EN 13501: D,s1

CONSUMPTION PER 1m² OF CLADDING

- 7 linear meters (2,26pcs) of ECO cladding profile
- 12 - 18 stainless steel clips, including screws (depending on the shape of the cladding)

ECO CLADDING PROFILE ACCESSORIES

- Stainless steel clip ECO
- Standard stainless steel clip ECO
- Anchoring stainless steel screws into wood
- TERAFEST® Finishing boards 70x16 mm and 90x16 mm

INSTALLATION OF ECO CLADDING PROFILE

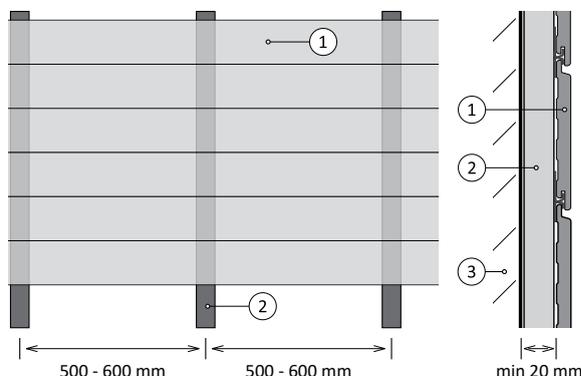
• ECO TERAFEST® cladding profile (1) is installed horizontally on a vertical grid that is sufficiently durable, composed of base joists (2) with a medium spacing of 300 to 600 mm. The maximum spacing of 600 mm must not be exceeded.

• The recommended minimum dimensions of a base wooden joist (2) is 25 x 40 mm; for other materials (aluminum, steel, etc.) the profile enables the reliable fixing of the stainless steel clip for the cladding installation.

• The minimum ventilated space between the cladding profile (1) and a wall (3) is 20 mm on the entire surface of the cladding. It is necessary to install a barrier in the form of a mesh or grid at the space between the base structure and the slab that could be penetrated by insects or rodents.

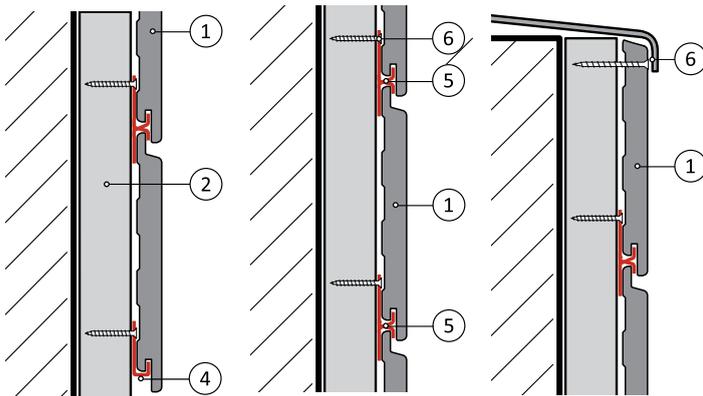
• Each part of the ECO TERAFEST® profile should be anchored by at least three base joists.

• Warning! On the edges of the building the structure is more susceptible to wind loads, so in these places it is recommended reducing the spacing of the base structure. For buildings in particularly exposed areas, we recommend calculating wind loads and designing optimal grid spacing.

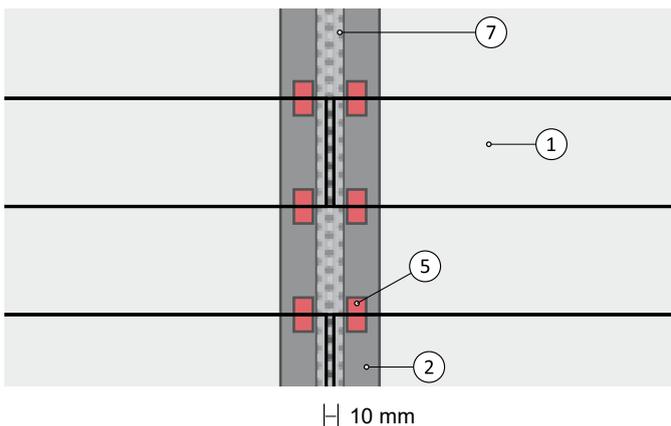


• The installation is performed from the lower cladding profile (1) with the aid of collating clips (4), which must be in a single horizontal line. The minimum distance of the lower ECO TERAFEST® profile from the ground should be such as to avoid the prolonged contact of the profile with water.

- The standard clip is pushed (5) on the bottom cladding profile (1), which is anchored with a screw (6) and then another cladding profile (1) is pushed onto the clip (5) so that the clip fits into the notch in the profile.
- During the installation of profiles, continuously check the evenness of the profiles by means of a level and the measurements of the lengthwise spaces.
- The last cladding profile (1) adjusted to the desired width is attached by stainless steel screws visible through the cladding to the structure (6).
- All holes for screws need to be predrilled into the ECO profile and deeper in the case of visible screws.
- The standard expansion space between the profiles is 5 mm and between the profile and the fixed part of the house it is 5mm. When installing the cladding during lower or higher temperatures, we recommend adjusting the size of the expansion spaces according to the table below.

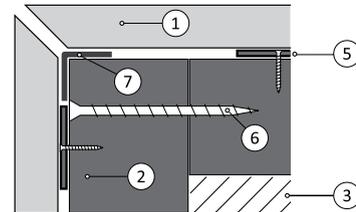


- The connection of the profiles is performed with two base joists side by side or one wider joist and two rows of standard clips. The maximum allowable overhang of the profile through the joist is 50 mm. To achieve a nice appearance, we recommend placing the connecting profiles alternately, thus in order to avoid a long vertical space.



- To prevent the shifting of the profile in a horizontal direction, we recommend securing the profile nearest to the center of the length of the profile through a screw into the base joist so that the screw is covered with the following profile. At the junction of the profiles we recommend protecting the wooden base joists with bitumen or EPDM tape (7).

- It is possible to employ a miter with an angle of 45 ° for the outside corner; the end of the cladding profiles (1) should be supported by a joist (2). The space between the profiles is again 5 mm; for the inside corners and for the butt joint the space is 5 mm.
- Other possibilities for the details of the corners and linking of claddings for door or window frames can be rendered using a WoodPlastic® finishing molding measuring 70x16 and 90x16 mm, which has the same color as the ECO TERAFAST® cladding. Always observe the expansion spaces.



Tab. 1 - Recommended expansion gaps (for the 3,1 m long profiles) depending on the temperature fluctuation and weather

Air temperature	Under +10°C	+10°C up to +25°C	Above +25°C
Distance between the cladding profile (in length)	3 mm	2 mm	1-1,5 mm (thickness of the clip)
Gap between the ends of the profile (both in length and width) and the wall	6 mm	5 mm	4 mm

Note: perform the cutting of the profiles to the desired length at the same temperature if applicable, protect the profiles before overheating in direct sunlight

ECO CLADDING PROFILE

MAINTENANCE, PROPERTIES, WARRANTY



TERAFEST®

MAINTENANCE OF ECO CLADDING PROFILE

Maintenance right after the installation

- Right after the installation rinse the cladding with fresh water, you can use the high pressure cleaner (max. 80 bars, spray from a constant distance of 40 cm and do not use rotating nozzle). It is important to get all the dust from the cladding to significantly reduce effect of water-dust spots (see Properties of the Material).

Preventive precautions

- We recommend washing the cladding once a year (in spring) with soapy water. Use a hard brush (brush the boards gently in the longitudinal direction) followed by rinsing the entire surface of the cladding with a stream of clean water (you can also use the pressure washer).

Removing the dirt and stains

- Avoid using aggressive cleaners, solvents and thinners. Do not paint TERAFFEST® products with stains, paint, wax, oil or varnish, if they are not approved by the manufacturer.

TYPE OF DIRT	THE CAUSE AND REASON	THE METHOD OF REMOVAL
Normal dirt	Dust and ash in the air, mold, pollen, etc.	Use common household cleaners (or special product for WPC products) with scrub brush or pressure washer and after rinse.
Color stains	Red wine, concentrated fruit juices, soft drinks, etc.	Immediately rinse the surface of the cladding with fresh water, then brush lengthwise and rinse again.
Greasy spots	Oils, fats, sunscreen products, grilled foods, etc.	Immediately rinse with clean water, then use a degreaser (soap or a special product for WPC decking) and scrub brush or pressure wash the stain and then rinse with clean water. The remainder of the stain (if some exist) will disappear within a few weeks when exposed to UV light and rain.
Resistant stains	Stains from mold, fungus, moss, leaves and other organic material.	Use cleaners containing chlorine. Before using cleaning products, rinse the cladding. Apply the cleaner and let it work, then rinse the treated area with clean water. Always follow the instructions and precautions on the cleaner packaging.
Water-dust spots	Slow evaporating water keeps dust or pollen on the surface of the cladding mostly in the partially covered areas (like around and under the roof, windows, etc.)	Rinse with clean water then use common household cleaners. Scrub and brush lengthwise and rinse again. These areas need to be cleaned on a regular basis to avoid staining.
Yellow shade of board surface	Maturation of the wood component.	This is a natural process of board surface maturation after exposure to sunlight and water. Yellow shade of the surface gradually disappears. The process can be partially accelerated by frequent rinsing.
Surface scratches	Movement of the furniture, rocks, etc.	Clean the surface with scrub brush lengthwise and rinse. If the scratches are visible you can use very light grade sandpaper sponge to gently remove the scratches lengthwise and rinse.
Burned areas	Embers from the grill, cigarettes.	Clean the surface with scrub brush lengthwise and rinse with fresh water.

SAFETY INSTRUCTIONS

- As when dealing with any other building material, observe all safety measures and all relevant legislation. When handling TERAFFEST® cladding maintain caution due to their greater weight and greater length. If this installation manual does not match applicable legislation or other regulation in any particulars, we consider the applicable legislation and regulations as prevailing over this manual. When cutting the TERAFFEST® cladding it is necessary to use protective equipment. For more detailed information on health safety please refer to the Material Safety Data Sheet on our website.

PROPERTIES OF THE MATERIAL

- Maturation of the wood component – during the first weeks or months after installation, depending on the intensity of sunlight and the season, there is a maturation of color (a yellow tinge). It is a maturation of the wood components in WPC (wood-plastic composite material is a blend of 60% wood and 40% of HDPE). This process over time, with exposure to sunlight and rain will return to the original shade.
- Water dust spots - are caused by slow evaporation of the water and dust or pollen stays on the surface of the cladding mostly in the partially sheltered areas (like around and under patio furniture, planters, eaves, etc.). These areas need to be cleaned on a regular basis to avoid staining.
- Under some specific weather conditions the TERAFFEST® cladding may accumulate static electricity. This is a common physical phenomenon, and therefore there is no reason for concern.

PROPERTY	TEST METHOD	VALUES
Flexural strength	EN 310, conditions according to EN 15534-1:2014, 7.3.2.	21,7 MPa
Shrinkage (100°C, 60 min, longitudinal direction)	EN 479, conditions according to EN 15534-1:2014, 9.3	0,02%
Impact strength (resistance to impact by falling mass in cold)	EN 477, conditions according to EN 15534-1:2014, 7.1.2.1	0% damaged
Swelling in water (28 days, 20 °C)	EN 317, conditions according to EN 15534-1:2014, 8.3.1	1,00%
Swelling up after moisture resistance test by cycling	EN 317, conditions according to EN 15534-1:2014, 8.3.1	1,10%
Flexural strength after moisture resistance test by cycling	EN 321, conditions according to EN 15534-1:2014, 7.3.2., EN 310	20,3 MPa
Coefficient of Thermal Linear Expansion	EN 15534-1:2014, 9.2	2,9*10 ⁻⁵ °C ⁻¹
Reaction to fire	EN 11925-2, EN ISO 9239-1, EN 13501-1+A1	Df1 - s1

PROPERTY	VALUES
Density	1210 kg/m ³
Surface Hardness (Janka test method)	127 MPa, very hard wood, according to ČSN 49 136
Termite resistance	No attack in the initial state and also over time
Resistance to fungus N34/EN318	Very durable material, the aging tests do not affect the durability

DIMENSIONAL TOLERANCE		
LENGTH: +/- 10mm	WIDTH: +/- 2 mm	THICKNESS: +/- 1 mm

WARRANTY ON THE ECO CLADDING PROFILE

A 25 year warranty applies to all TERAFFEST® products against: wood-destroying fungi, rot and insects under normal conditions. For all other cases, the standard warranty of 60 month applies. For commercial use, the extended warranty is 10 years.

This guarantee means that we will replace damaged products. If your product is not produced anymore, it will be exchanged for a similar. Under this warranty, you cannot claim any additional financial or other compensation. All work and related costs are excluded from the guarantee.

This warranty does not apply to:

- Color fastness - The TERAFFEST® products have UV protection. However, it is a wood product and, therefore, may over time experience color changes as a result of exposure to sunlight and humidity.
- Maturation of the wood component – during the first weeks or months after installation, depending on the intensity of sunlight and the season, there is a maturation of color (a yellow tinge). It is a maturation of the wood components in WPC. This process over time, with exposure to sunlight and rain will return to the original shade. These color variations are not a defect and do not constitute a reason for reclamation.
- Water dust spots – It is a common phenomenon, and therefore does not compromise the quality of the product.
- Occurrence of static electricity.
- Normal wear and tear
- Problems caused due to poor preparedness of the vertical grid and lack of drainage or protection of it.
- Failure to follow installation instructions – the warranty does not apply to TERAFFEST® products that have not been installed in accordance with the installation instructions supplied with our material. Or products that are used for purposes other than those specified by the manufacturer.

MANUFACTURER

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