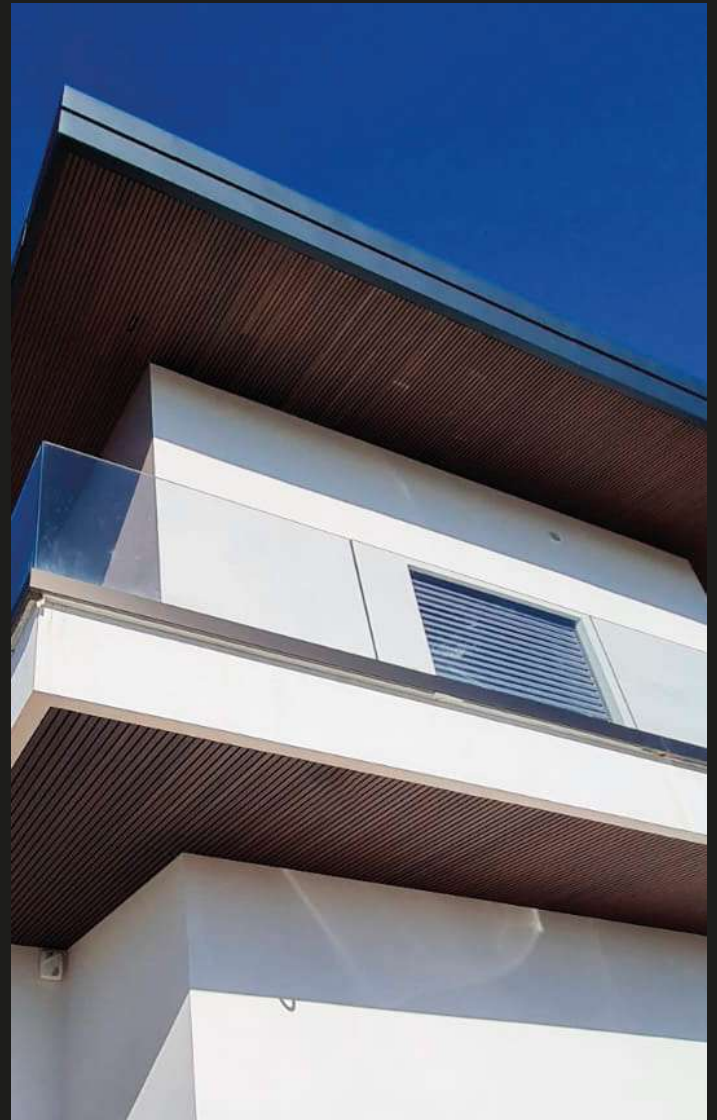


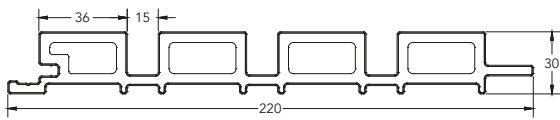
STC W PROFILE

THE WORLD'S NOT ALWAYS FLAT



TECHNICAL FEATURES

■ STC W (STANDARD TECNODECK COMPOSITE)



STC W PROFILE 220x15x36 mm

Density EN ISO 1183-1 (g/cm ³)	1,33
Weight (kg/ml)	3,190 (± 5%)
Influence of moisture, EN 317	
Water absorption (%)	0,50
Thickness swelling (%)	0,20
Content and release of dangerous substances	contains no dangerous substances
Modulus of elasticity in bending, EN 310 (N/mm ²) (Distance between supports 500 mm)	3500
Thermal expansion coefficient (K ⁻¹) (Distance between supports 500 mm)	41,4x10 ⁻⁶
Fire behaviour	not tested

Notes:

The Tecnodeck profiles dimensions have a tolerance of (±) 1 mm.

These features are only for information purposes, and the manufacturer may change them without previous notice.

COMPONENTS

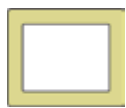
■ STC W (STANDARD TECNODECK COMPOSITE)

COMPONENTS ESTIMATION PER SQUARE METER ²

- STC W Profile = 5 linear meters
- Tecnodeck ALU Profile 38x20 = 2,5 linear meters
- Screw A2 Ø3,15x 9 = 13 pieces
- Tecnodeck Rectangular = 13 pieces
- Tecnodeck Spacer 25x3 = 8 pieces
- Nylon Anchor Fastener 8x60 = 8 pieces



STC W Profile 220x30



Tecnodeck Profile 36x30



Tecnodeck Alu Profile 20x25



Tecnodeck Alu Profile L 49x53



Tecnodeck rectangular 20x9x2,5



Screw A2 Ø3,5x19


 Self-drill screw pan head
A2 Ø4,8x19

 Self-drill screw pan head
A2 Ø4,8x38

 Tapping screw countersunk head
A2 Ø4,8x38

 Tapping screw countersunk head
A2 Ø3,9x19


Bushing A2 Ø10x8x5



Nylon cap



Tecnodeck spacer 25x3



Tecnodeck Alu Profile 38x20



Nylon anchor fastener 8x60

LAQUERING COLORS* FOR METAL ACCESSORIES

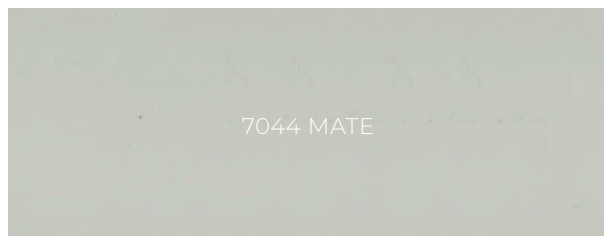


THE HIGH TECH WOOD COMPOSITE

www.tecnodeck.net

■ **STC W** (STANDARD TECNODECK COMPOSITE)

WHITE SHADE



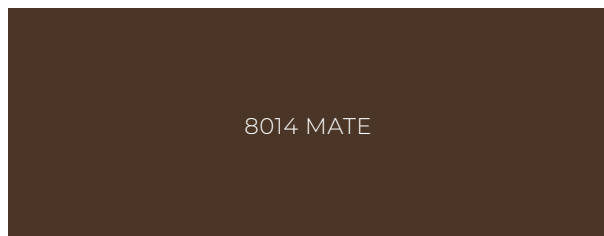
7044 MATE

URBAN GREY



9007 MATE

TROPICAL BROWN



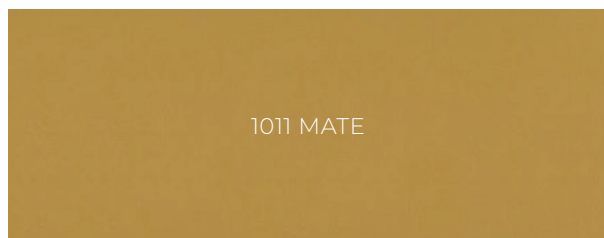
8014 MATE

VULCANO BLACK



7022 MATE

SAND BROWN



1011 MATE



600 SABLE

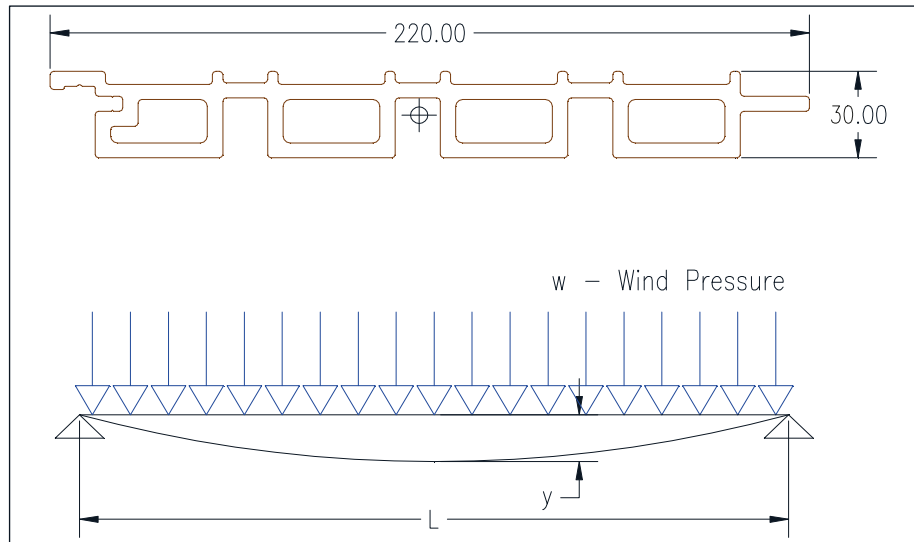
* The color are approximate to the composite colors.

WIND PRESSURE TESTS

■ STC W (STANDARD TECNODECK COMPOSITE)

Tecnodeck performed several bending tests with STC W.

The worst-case scenario, is with the wind blowing from behind the structure.



According to the test our internal result, STC W has a flexure ultimate load characteristic of $\sigma_R = 28,1\text{Mpa}$. In the following table it is possible to verify the safety coefficient of the STC W Profile, according to the wind pressure.

Wind Speed		Wind Pressure		STC W Safety Coefficient
V		P		
mph	km/h	psf	N/m ²	
110	177	30,98	1.482,31	14
130	209	43,26	2.070,33	10
150	241	57,60	2.756,36	8
170	274	73,98	3.540,39	6
190	306	92,42	4.442,42	5
210	338	112,90	5.402,46	4

1 mph = 1,609344 Km/h

1 Lbs = 4,4482216282509 N

According American Society Civil Engineers (ASCE)

$P = 0,00256 V^2$ (pfs)

$P = 0,613 V^2$ (N/m²)

TECHNICAL INFORMATION

SRI (Solar Reflectance Index)

SRI is a value that incorporates both **solar reflectance (SR)** and **emittance (TE)** in a single value to represent a material's temperature in the sun. SRI quantifies how hot a surface would get in proportion to standard black and standard white surfaces. It is calculated using equations based on previously measured values of solar reflectance and emittance as laid out in the American Society for Testing and Materials Standard E 1980. Standard White (SRI = 100) and Standard Black (SRI = 0).

TE (Thermal Emissivity)

The ratio of the rate of radiant heat energy emitted by a body at a given temperature to the rate of radiant heat energy emitted by a black body under same conditions (temperature and surroundings).

The emittance of a material refers to its ability to release absorbed heat. Scientists use a number between 0 and 2, or 0% and 100%, to express emittance. With the exception of metals, most construction materials have emittances above 0,85 (85%).

SR (Solar Reflectance)

Solar reflectance is a measure of the ability of a surface material to reflect sunlight - including the visible, infrared, and ultraviolet wavelengths - on a scale of 0 (black) to 1 (white). Solar reflectance is also called "albedo".

Average **SRI** according ASTM E903-12, for each sample type for different natural convection coefficient for air values.

Convection coefficient [Wm ⁻² . K ⁻¹]	SRI - Solar reflectance index (max.)		
	5	12	30
Tecnodeck STC Color			
Tecnodeck White Shade	28,08	29,74	31,03
Tecnodeck Sand Brown	20,41	21,96	23,17
Tecnodeck Urban Grey	8,02	9,20	10,19
Tecnodeck Tropical Brown	5,04	6,03	6,89
Tecnodeck Vulcano Black	1,85	2,72	3,46

The SRI is calculated in three convective coefficients of 5, 12, 30 Wm⁻².K⁻¹, corresponding to low-wind (0 to 2 ms⁻¹), medium-wind (2 to 6 ms⁻¹), and high-wind (6 to 10 ms⁻¹) conditions, respectively.

Tecnodeck STC Color	SR - Solar reflectance		TE - Emissivity for a temperature of 100°C	
	Average	Standard deviation	Average	Standard deviation
Tecnodeck White Shade	0,291	0,002	0,86	0,001
Tecnodeck Sand Brown	0,233	0,001	0,86	0,002
Tecnodeck Urban Grey	0,134	0,001	0,87	0,001
Tecnodeck Tropical Brown	0,109	0,001	0,87	0,001
Tecnodeck Vulcano Black	0,082	0,001	0,87	0,001

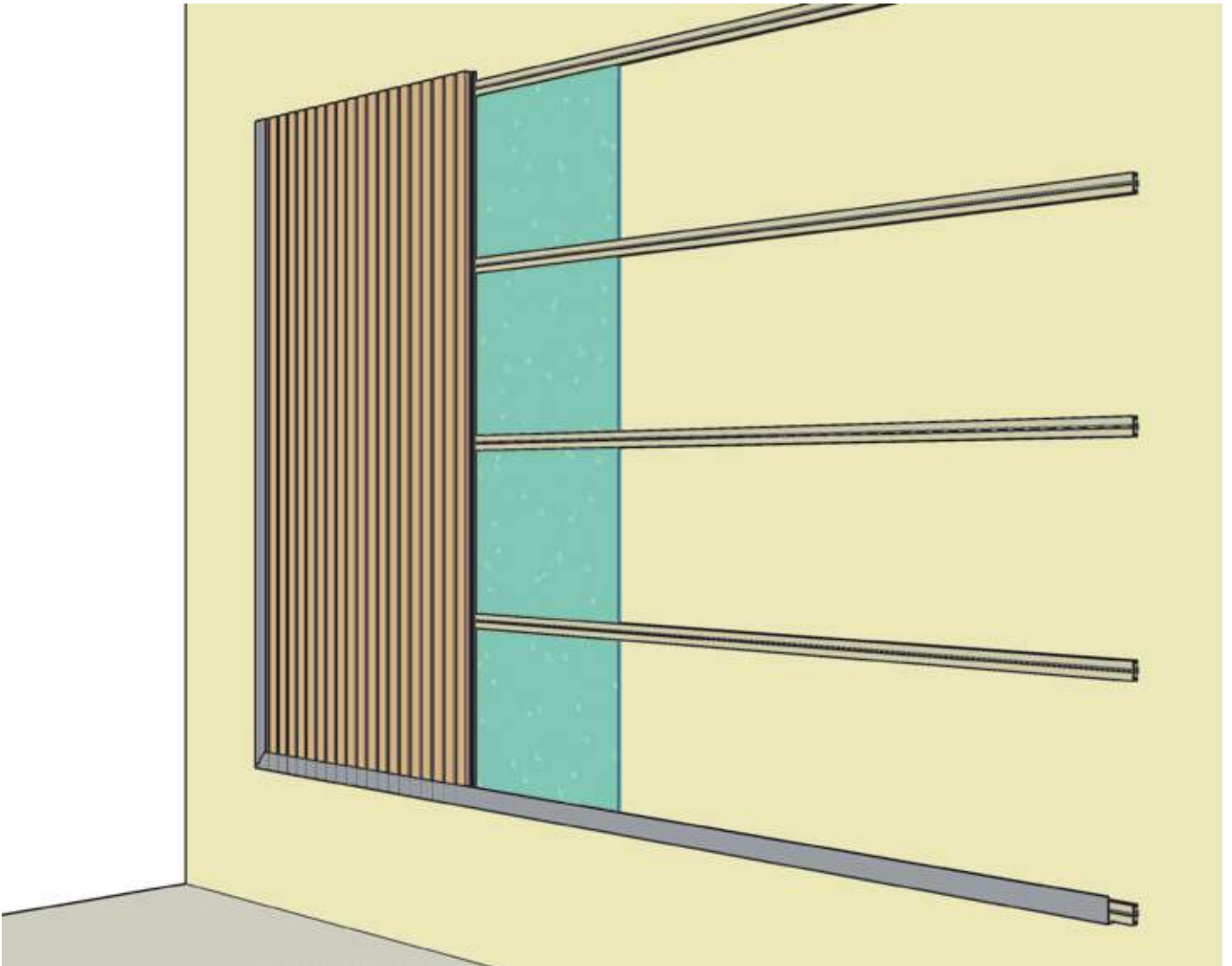
POSSIBLE INSTALLATIONS

■ **STC W** (STANDARD TECNODECK COMPOSITE)

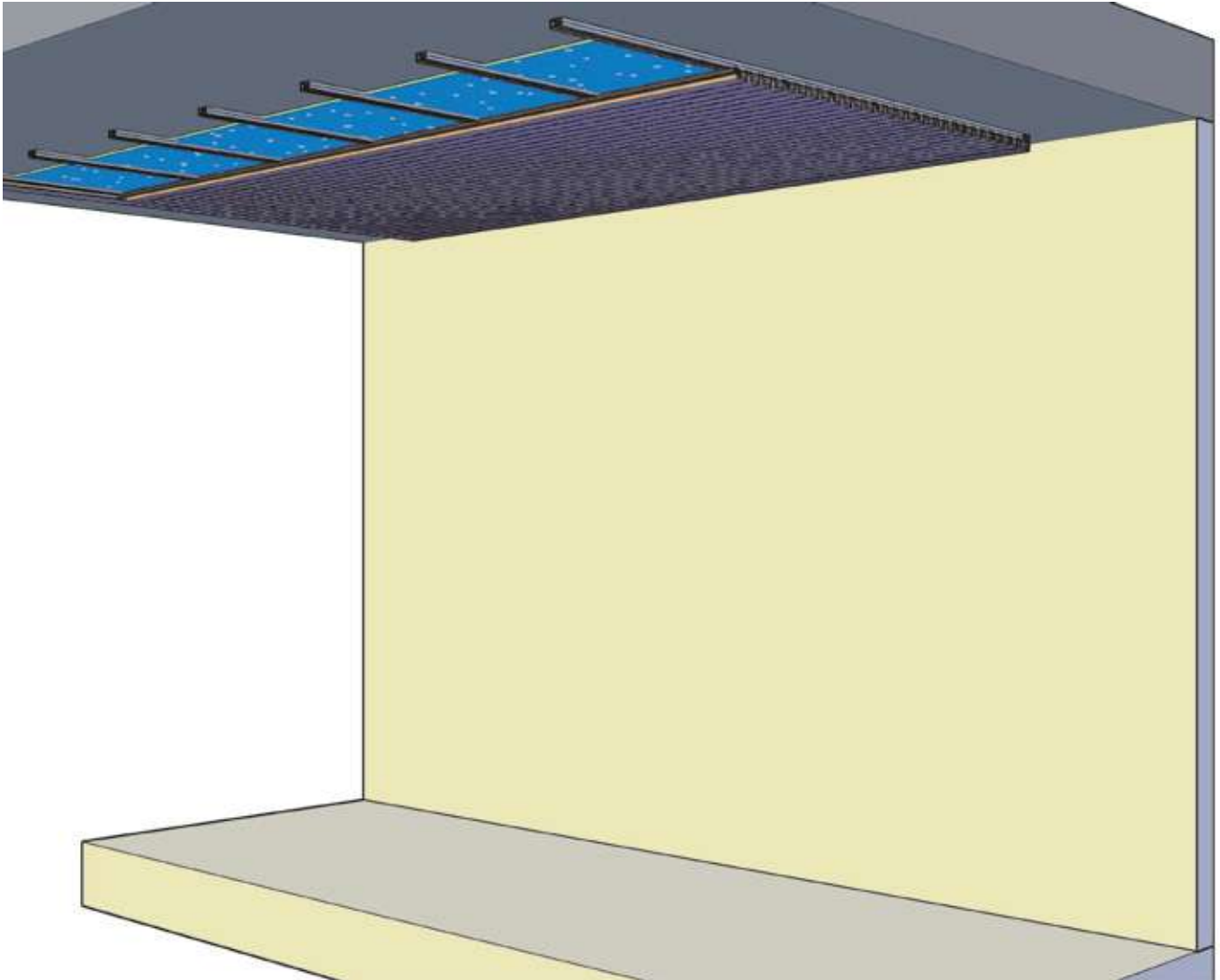
HORIZONTAL



VERTICAL



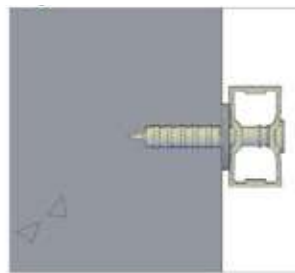
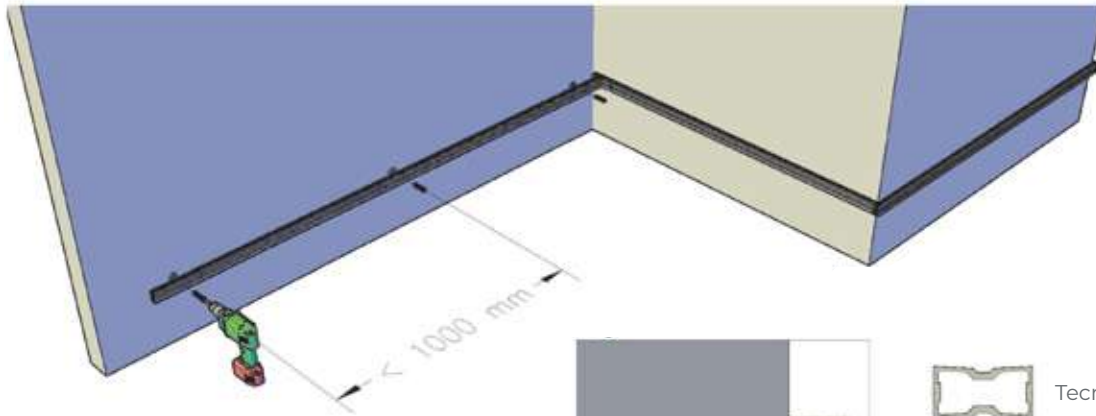
CEILING



INSTALLATION

■ STC W (STANDARD TECNODECK COMPOSITE)

STEP 1 - L-ALU PROFILE JOIST SUPPORT. PLACING AND FIXING



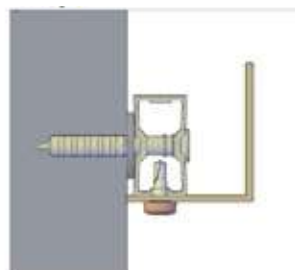
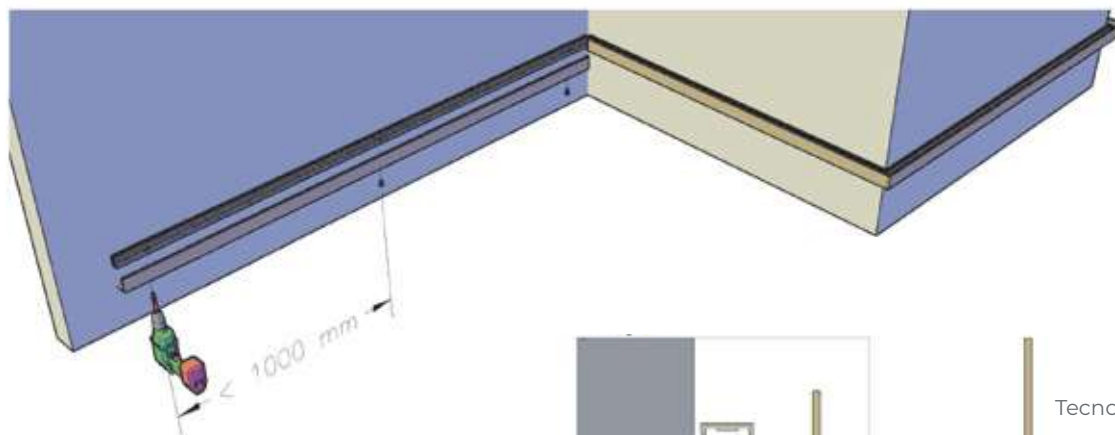
Tecnodeck Alu 38x20



Tecnodeck spacer 25x3



Nylon anchor fastener 8x60



Tecnodeck Alu-L 49x53

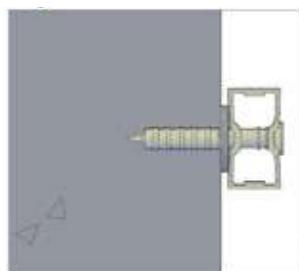
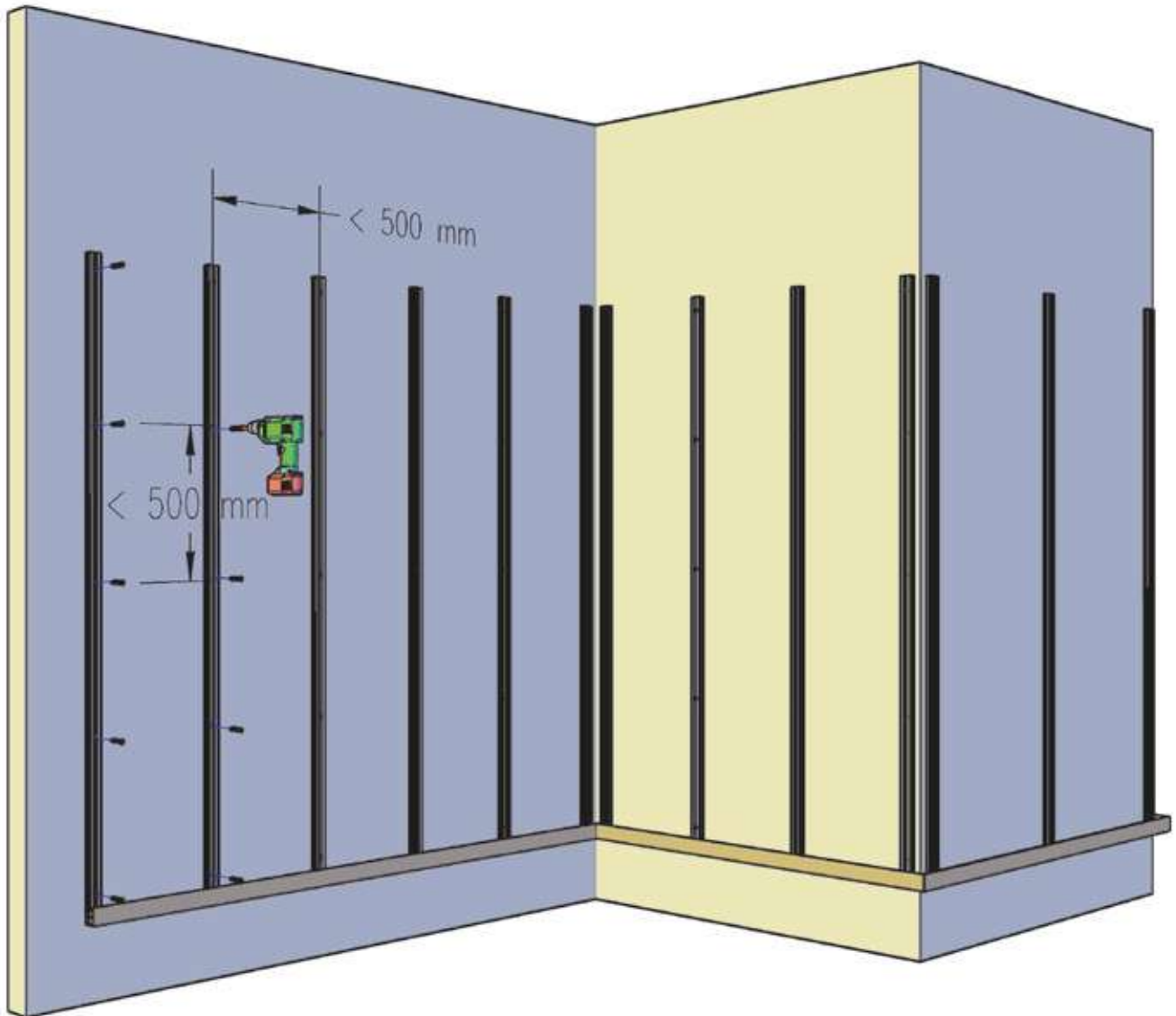


Screw A2 Ø4.8x19



Nylon cap

STEP 2 - JOIST PLACING AND FIXING



Tecnodeck Alu 38x20

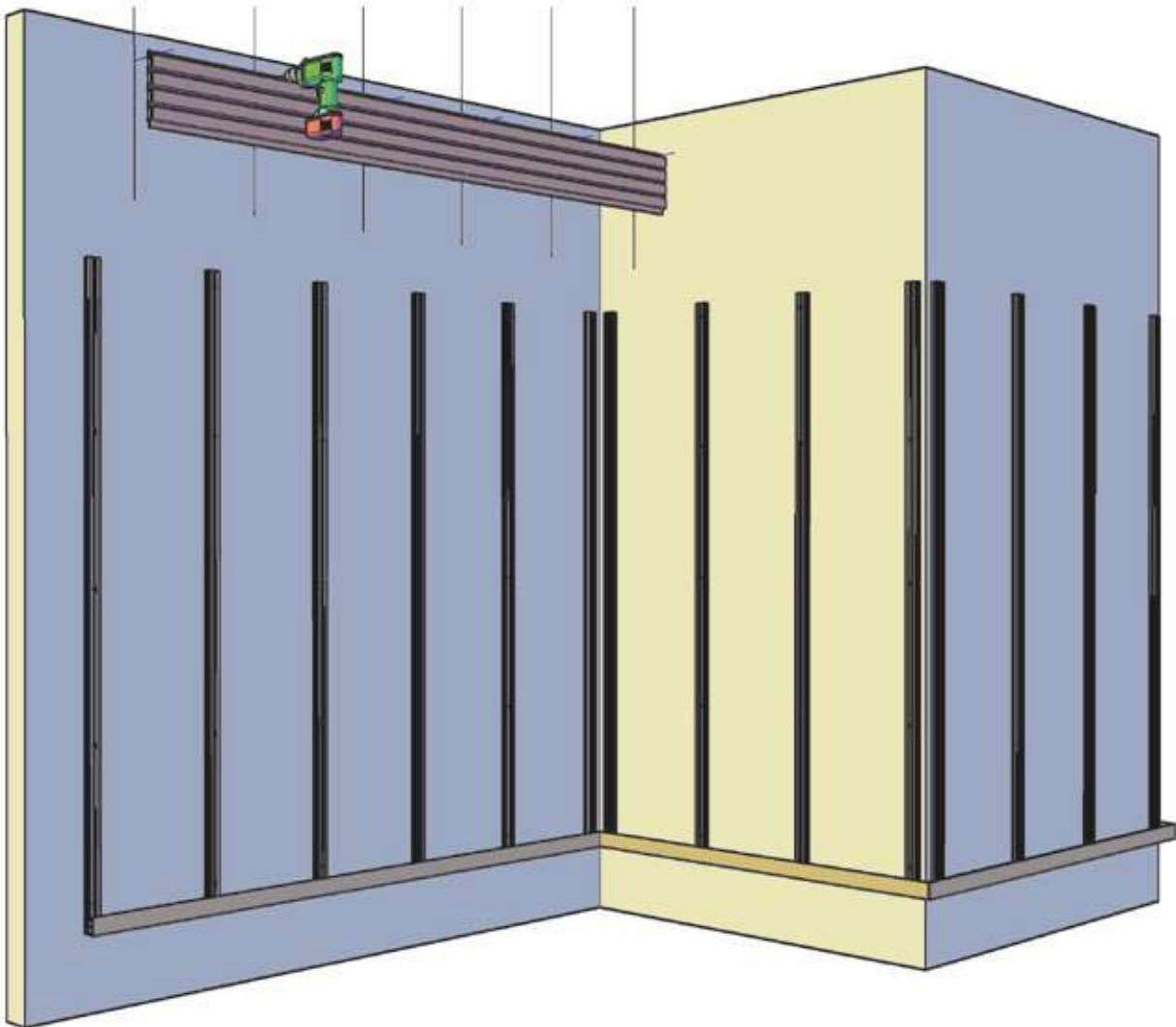


Tecnodeck spacer 25x3



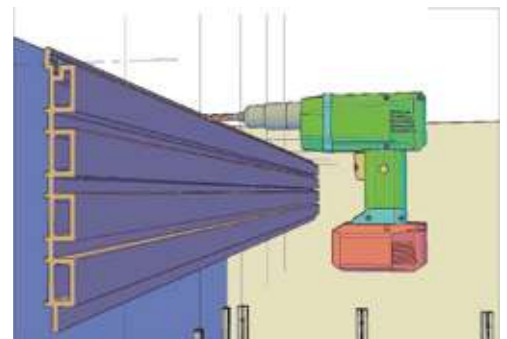
Nylon anchor fastener 8x60

STEP 3 - STC W BOARD CUTTING AND DRILLING

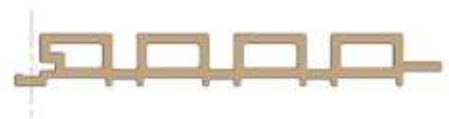


ATTENTION

- A peripheral space of 10mm must be kept around the installed set of panels, allowing the normal expansion movement.
- Use profiles to cover these spaces without blocking the material movement.
- Please do not overtighten the fixation screws.
- Overtightening the fixations screws, can damage the boards and/or the rectangular washer and does not allow for the natural free movement of the boards due to temperature changes.
- Use the screwdriver torque control.

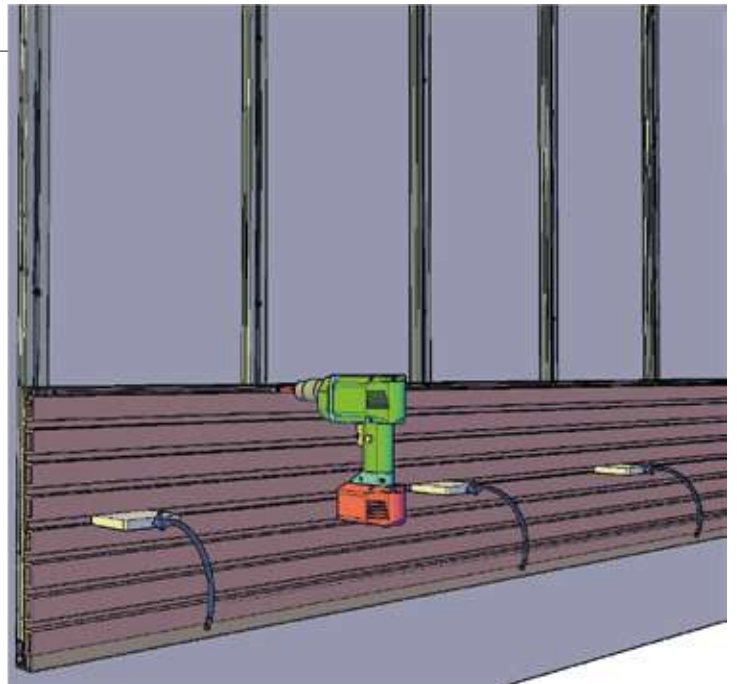
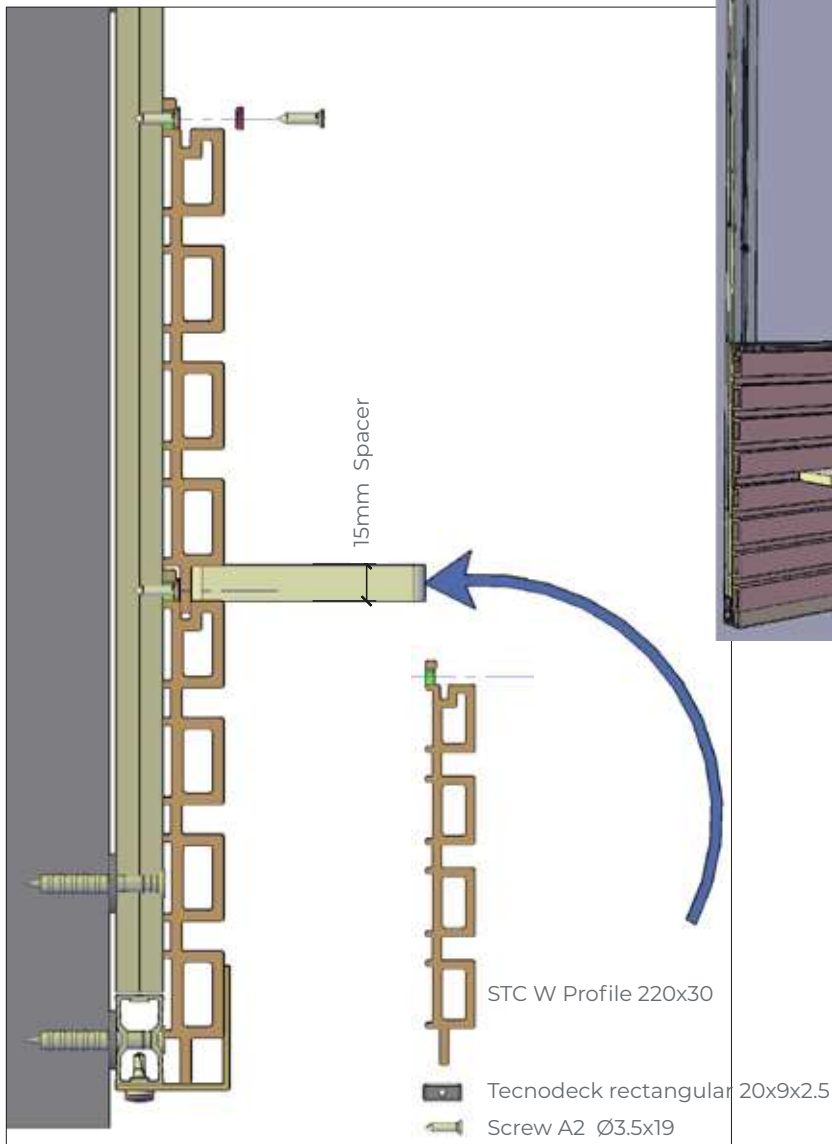


Pre-drill W Board with Ø8mm drill or bigger.



STC W Profile 220x30

STEP 4 - STC W BOARD PLACING AND FIXING

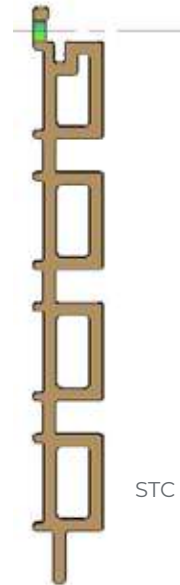
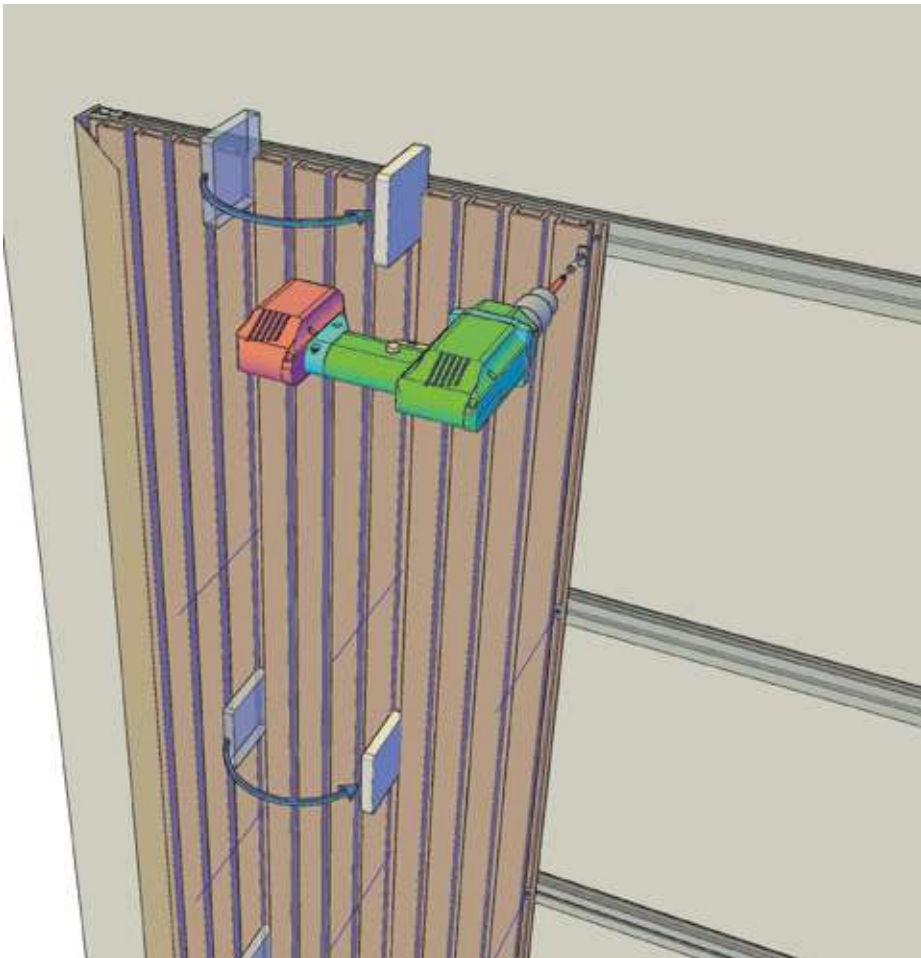


- Before screw STC W Profile, align profile with 15mm spacers.
- Repeat this procedure and verify alignments in all profiles to guarantee the profiles and panels alignment.

ATTENTION

- A peripheral space of 10mm must be kept around the installed set of panels, allowing the normal expansion movement.
- Use profiles to cover these spaces without blocking the material movement.
- Please do not overtighten the fixation screws.
- Overtightening the fixations screws, can damage the boards and/or the rectangular washer and does not allow for the natural free movement of the boards due to temperature changes.
- Use the screwdriver torque control.

STEP 4 - STC W BOARD PLACING AND FIXING



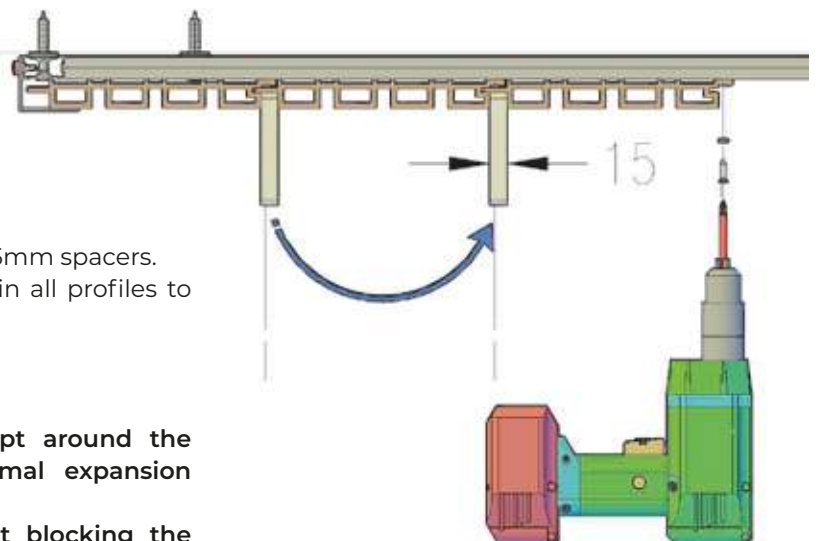
STC W Profile 220x30



Tecnodeck rectangular 20x9x2.5



Screw A2 Ø3.5x19

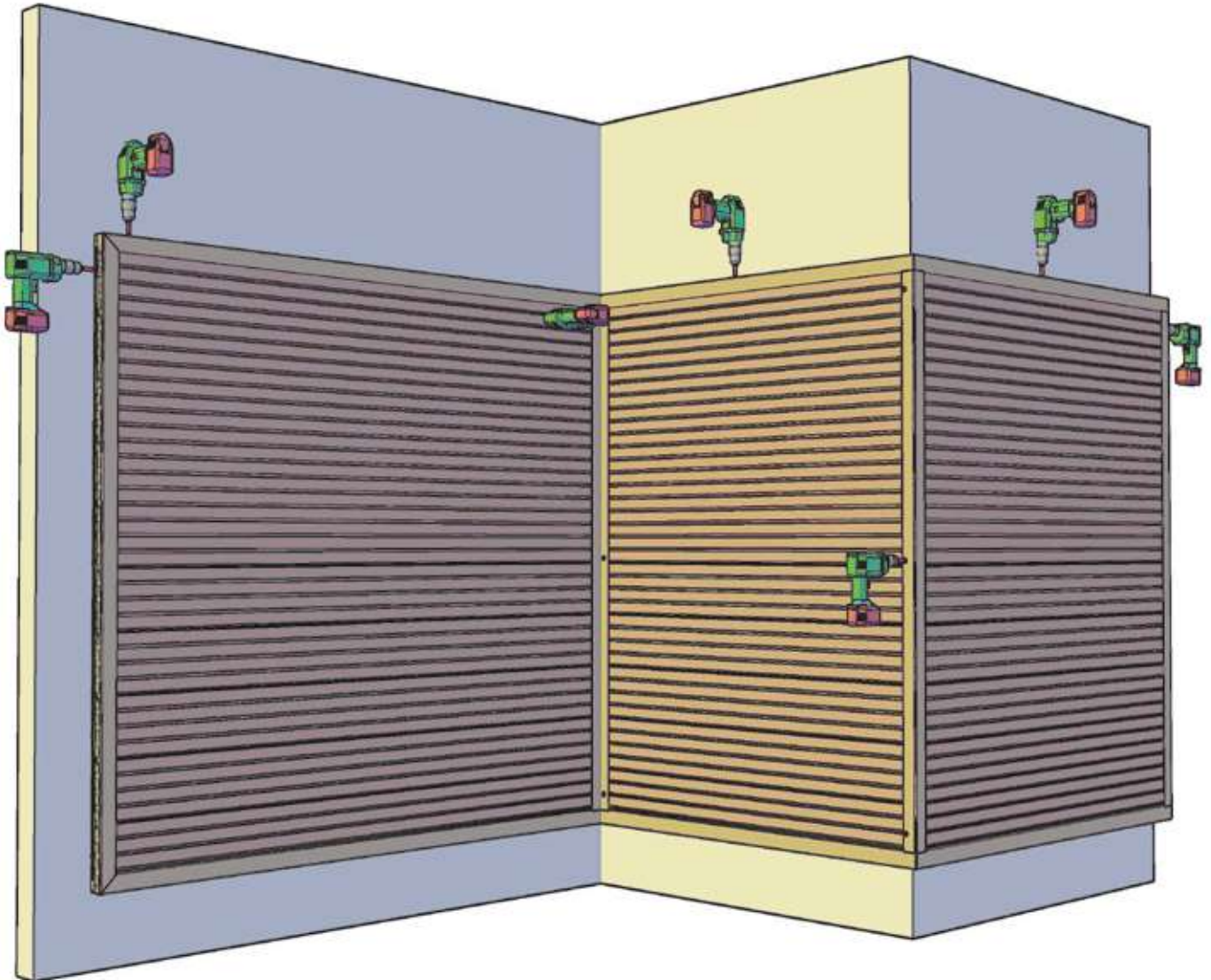


- Before screw STC W Profile, align profile with 15mm spacers.
- Repeat this procedure and verify alignments in all profiles to guarantee the profiles and panels alignment.

ATTENTION

- A peripheral space of 10mm must be kept around the installed set of panels, allowing the normal expansion movement.
- Use profiles to cover these spaces without blocking the material movement.
- Please do not overtighten the fixation screws.
- Overtightening the fixations screws, can damage the boards and/or the rectangular washer and does not allow for the natural free movement of the boards due to temperature changes.
- Use the screwdriver torque control.

STEP 5 - FINISHING PROFILE PLACING AND FIXING



Tecnodeck Alu-L 49x53



Screw A2 Ø4.8x19



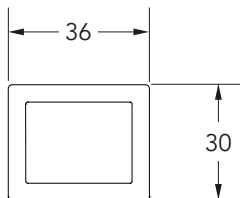
Screw A2 Ø4.8x38



Nylon cap

TECHNICAL FEATURES

■ TECNODECK PROFILE 36x30 mm



TECNODECK PROFILE 36x30 mm

Density EN ISO 1183-1 (g/cm ³)	1,33
Weight (kg/ml)	0,687 (± 5%)
Influence of moisture, EN 317	
Water absorption (%)	0,50
Thickness swelling (%)	0,20
Content and release of dangerous substances	contains no dangerous substances
Modulus of elasticity in bending, EN 310 (N/mm ²) (Distance between supports 500 mm)	3500
Thermal expansion coefficient (K ⁻¹) (Distance between supports 500 mm)	41,4x10 ⁻⁶
Fire behaviour	not tested

TECNODECK ALU, PROFILE 25x20 mm or PROFILE 20x20 mm



Alloy	6060 T6	6060 T6
Weight ALU (kg/ml)	0,443	0,389
Density (kg/dm ³)	2,7	2,7
Tensile Strength (Mpa)	190	190
Yield Strength (Mpa)	150	150
Vickers Hardness	60	60
Modulus of Elasticity (Mpa)	70 000	70 000
Modulus of Rigidity (Mpa)	27 000	27 000

Notes:

The Tecnodeck profiles dimensions have a tolerance of (±) 1 mm.

These features are only for information purposes, and the manufacturer may change them without previous notice.

COMPONENTS

■ TECNODECK PROFILE 36x30 mm



STC W Profile 220x30



Tecnodeck Profile 36x30



Tecnodeck Alu Profile 20x25



Tecnodeck Alu Profile L 49x53



Tecnodeck rectangular 20x9x2,5



Screw A2 A2 Ø3,5x19



Self-drill screw pan head
A2 Ø4,8x19



Self-drill screw pan head
A2 Ø4,8x38



Tapping screw countersunk head
A2 Ø4,8x38



Tapping screw countersunk head
A2 Ø3,9x19



Bushing A2 Ø10x8x5



Nylon cap



Tecnodeck spacer 25x3



Tecnodeck Alu Profile 38x20



Nylon anchor fastener 8x60

LAQUERING COLORS* FOR METAL ACCESSORIES

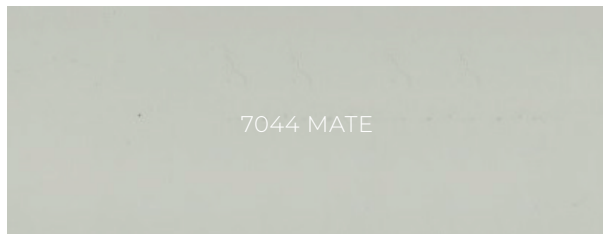
■ TECNODECK PROFILE 36x30 mm

Tecnodeck[®]

THE HIGH TECH WOOD COMPOSITE

www.tecnodeck.net

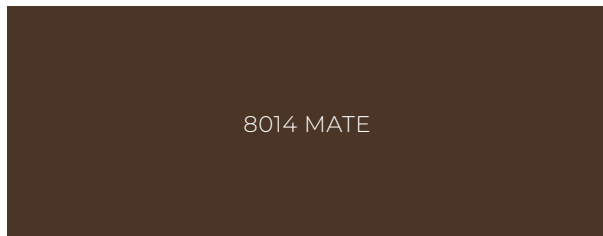
WHITE SHADE



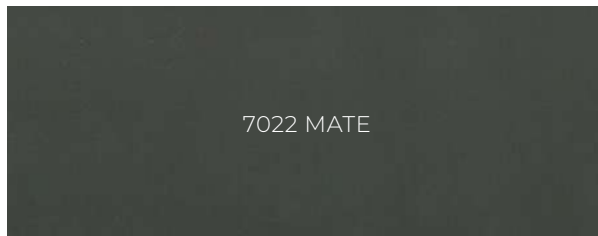
URBAN GREY



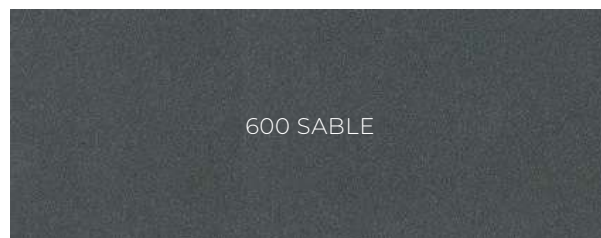
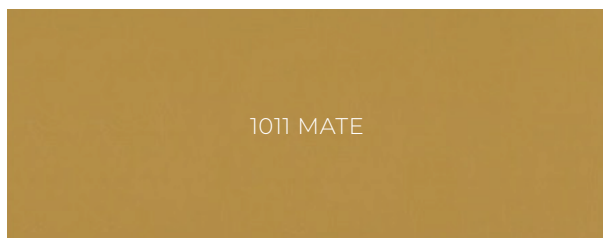
TROPICAL BROWN



VULCANO BLACK



SAND BROWN



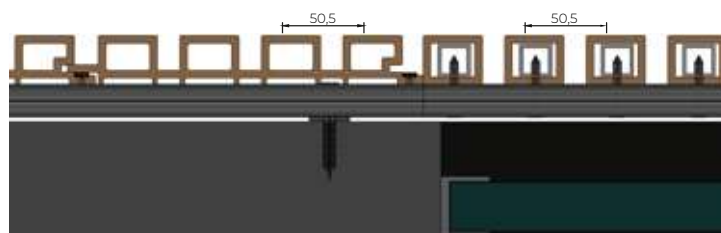
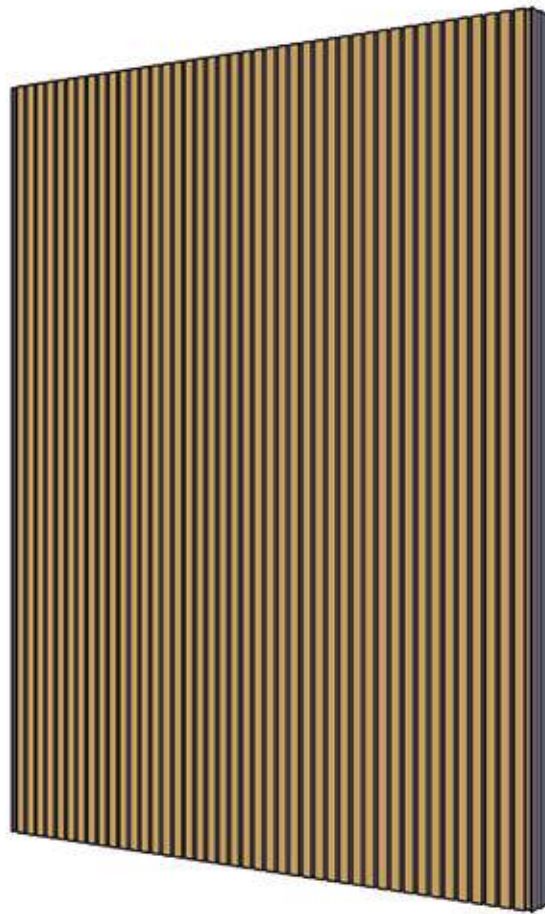
* The color are approximate to the composite colors.

POSSIBLE INSTALLATIONS

■ TECNODECK PROFILE 36x30 mm

INSTALLATIONS

- Tecnodeck Profile 36x30 can easily combine with Tecnodeck STC W Profile, because its section dimensions are the same, 36x30mm.
- Using the same spacing as the W Profile (50,5mm), an opening (window) is quite imperceptible from the outside, maintaining the same stereotomy, still allowing the entry of light and the view from inside to outside:

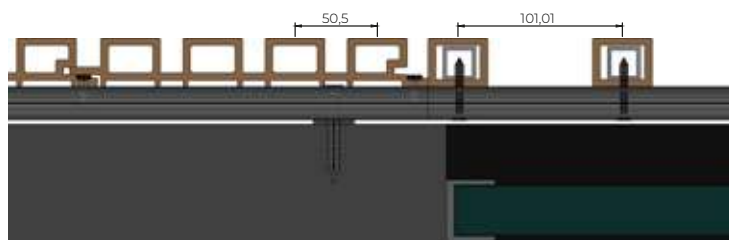
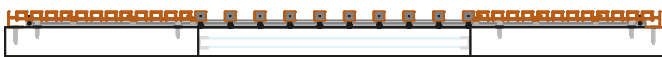
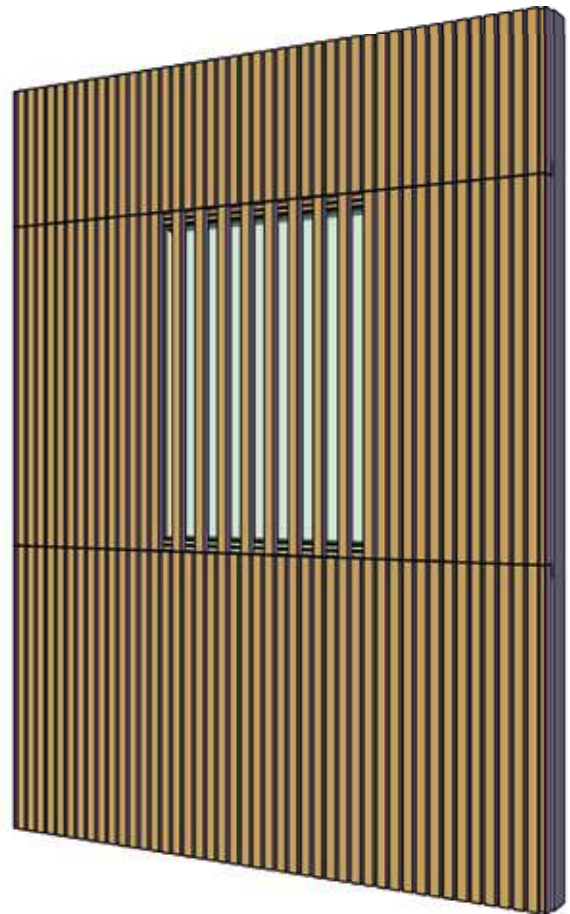
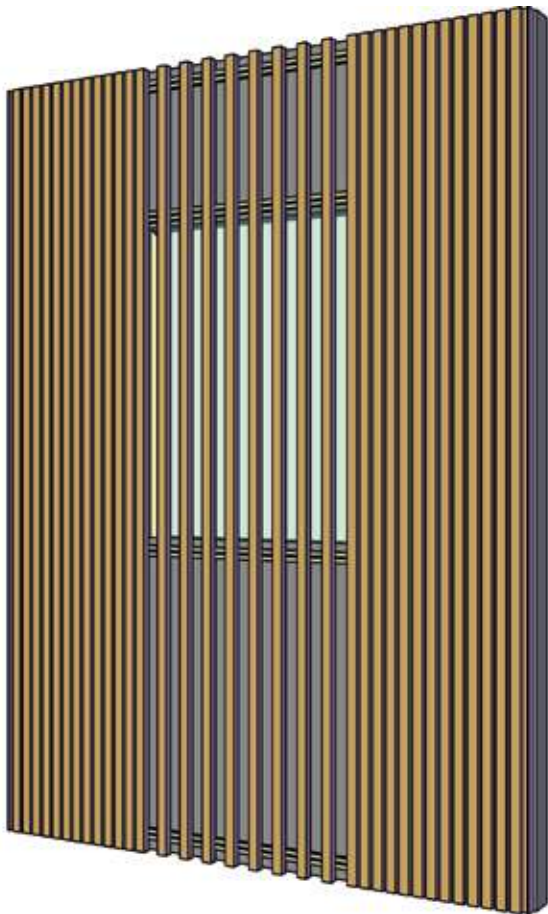


SAME SPACING GAPS

POSSIBLE INSTALLATIONS

■ TECNODECK PROFILE 36x30 mm

- Playing with the Tecnodeck Profile 36x30 profile span, you can easily mark/highlight a specific area of the facade, increasing internal luminosity and/or external visibility.

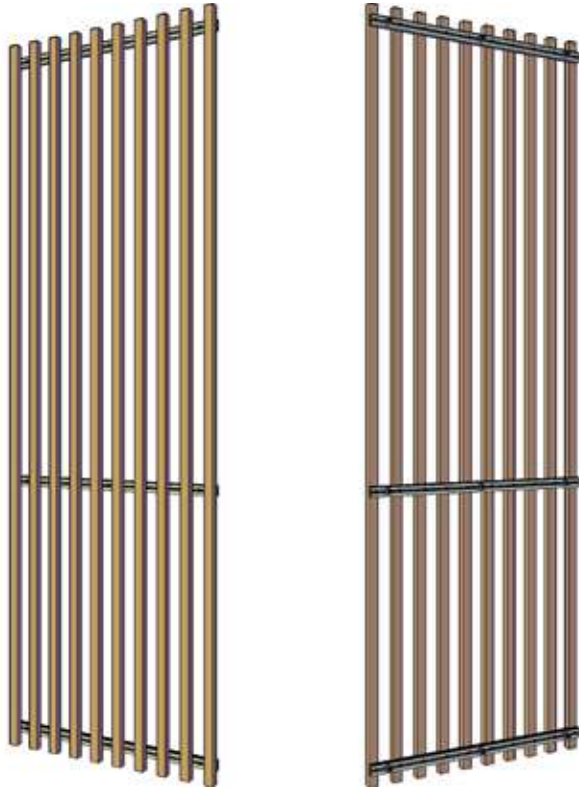


DIFFERENT SPACING GAPS

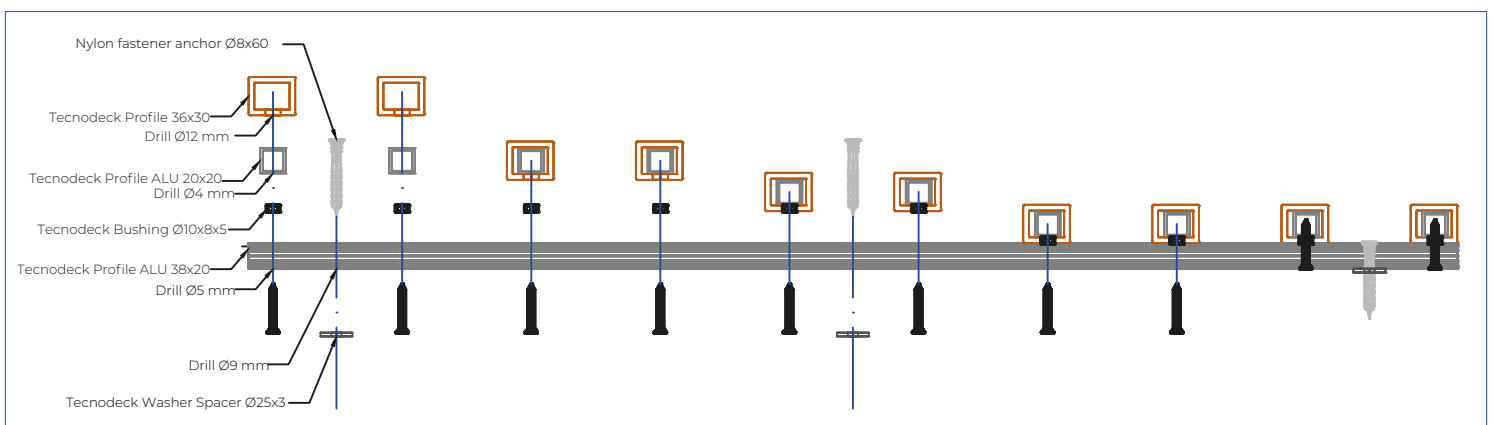
INSTALLATION

■ TECNODECK PROFILE 36x30 mm

- Tecnodeck Profile 36x30, can be applied as pre-mounted panels, with a virtually invisible fixation system.



PRE-MOUNTING OF PANELS WITH TECNODECK 36X30 PROFILES

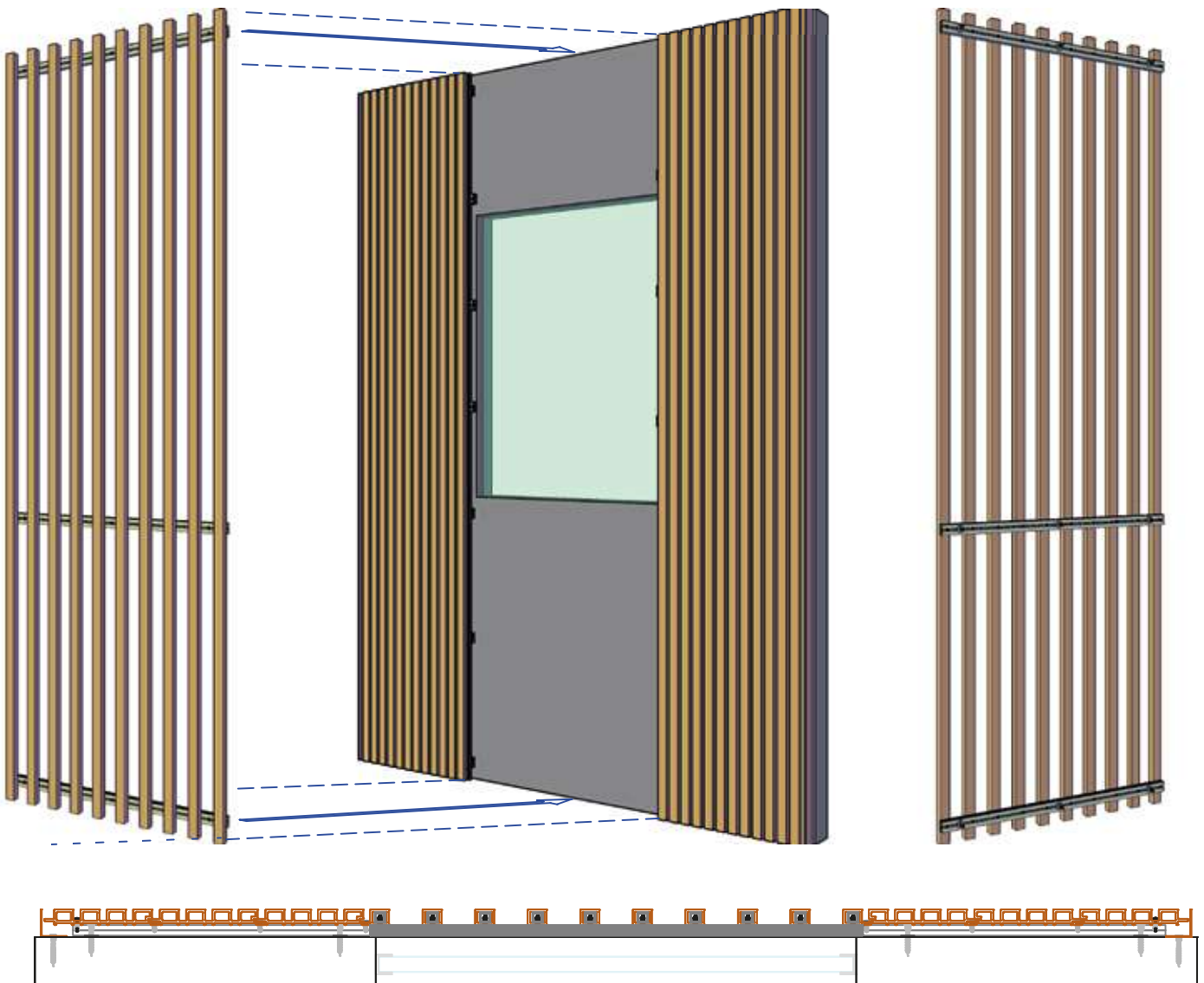


- Cut the Tecnodeck Profile 36x30 to the desired length (panel length).
- Cut Tecnodeck Alu Profile 20x20/2mm slightly shorter than the Tecnodeck Profile 36x30.
- Cut the Tecnodeck Alu Profile 38x20 (joist) to the desired length (panel width).
- To avoid bending and wind shaking, the Tecnodeck profile 36x30 must have a maximum support distance of 2500mm. A shorter span means more stiffness for the profiles.

INSTALLATION

■ TECNODECK PROFILE 36x30 mm

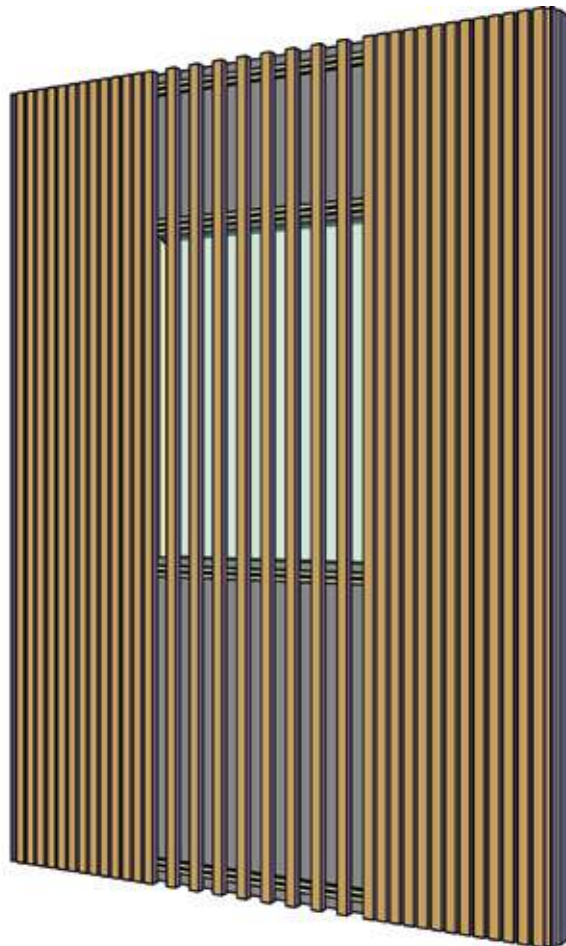
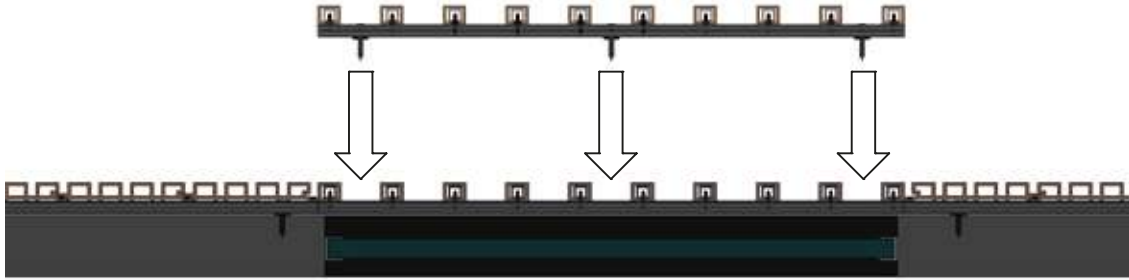
- Tecnodeck Profile 36x30 are screwed to the Tecnodeck Alu Profile 38x20 from behind. Drill Ø12mm holes at Tecnodeck Profile 36x30, drill Ø4mm holes at Tecnodeck Alu Profile 20x20 and drill Ø5mm holes at Tecnodeck Alu Profile 38x20.
- To avoid crushing of the Tecnodeck Profile 36x30, use a Tecnodeck bushing Ø10x8x5 when screwing the 3 profiles with the countersunk head Ø4.8x38 screws.
- Using the washers spacer Ø25x3, install the finished panel on to the wall with nylon anchor fastener Ø8x60, each 500mm or less. Drill Ø9mm holes at Tecnodeck Alu Profile 38x20.



INSTALLATION

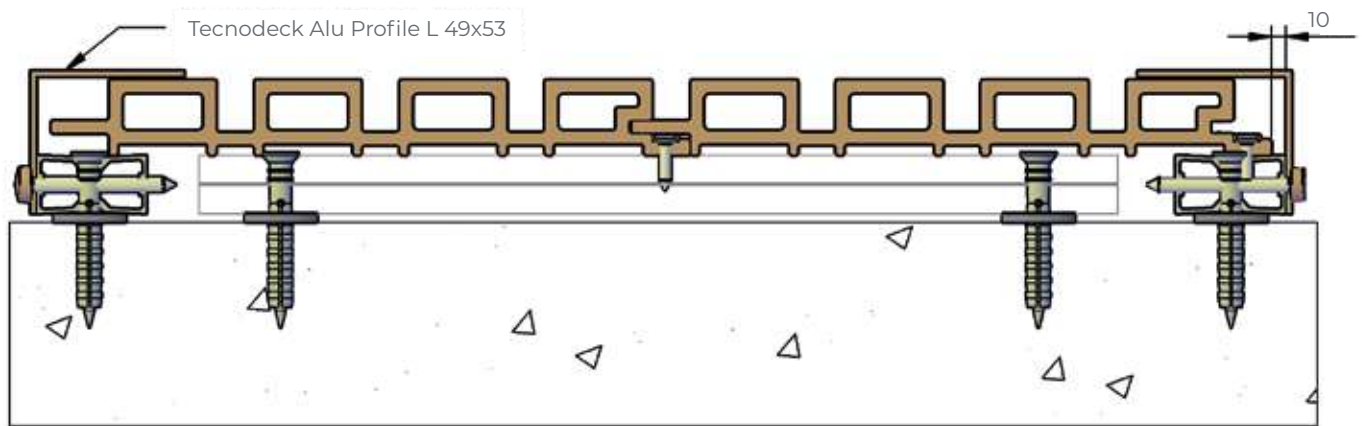
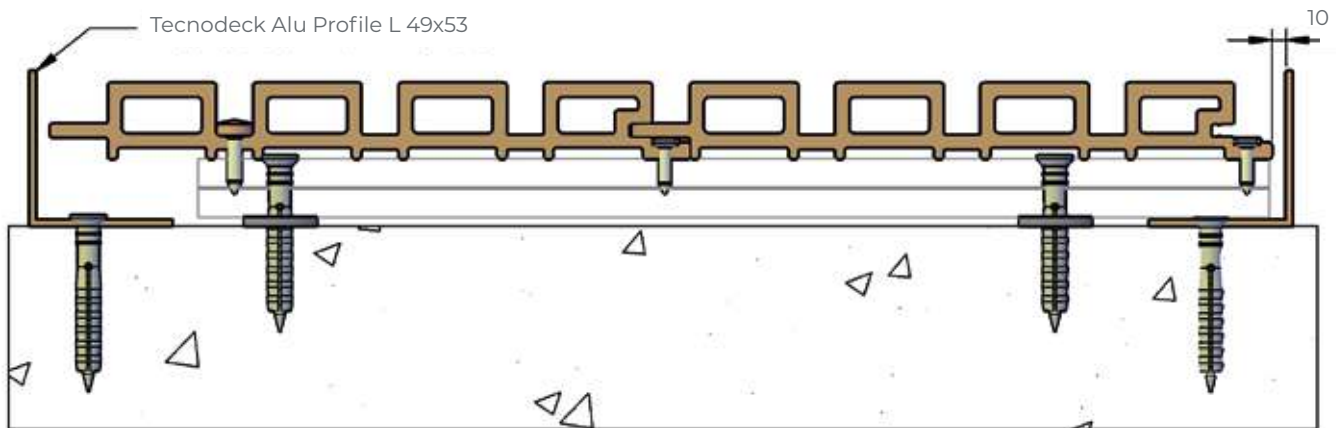
■ TECNODECK PROFILE 36x30 mm

INSTALLATION OF THE PANEL ON THE WALL



FINISHINGS

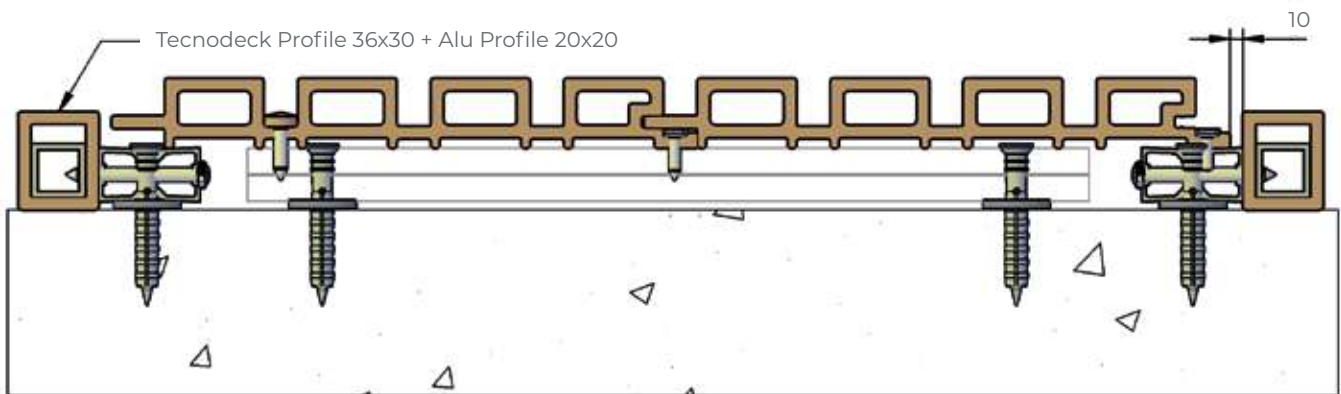
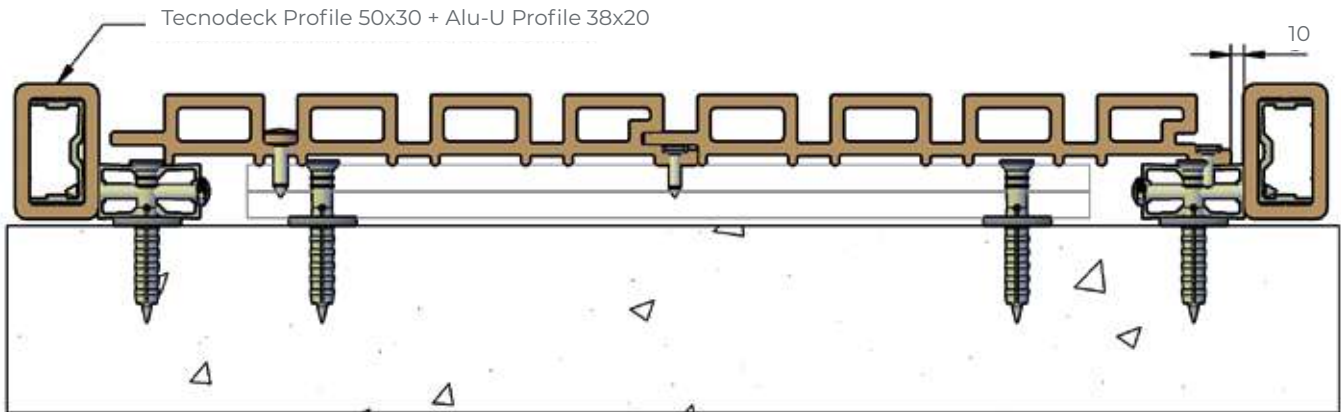
■ TECNODECK PROFILE 36x30 mm



- Consider a 10mm gap between Tecnodeck STC W Profile and finishing profiles or any other static element/obstacle.

FINISHINGS

■ TECNODECK PROFILE 36x30 mm



- Consider a 10mm gap between Tecnodeck STC W Profile and finishing profiles or any other static element/obstacle.