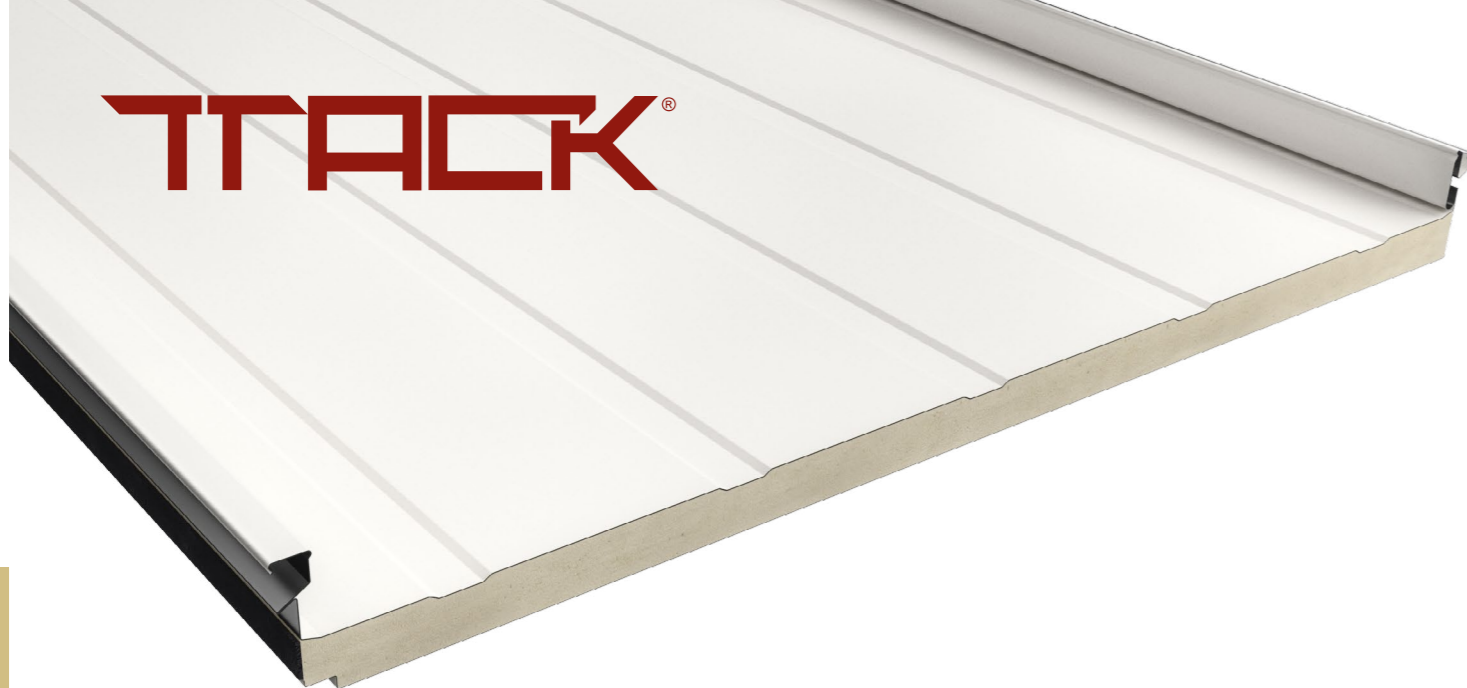


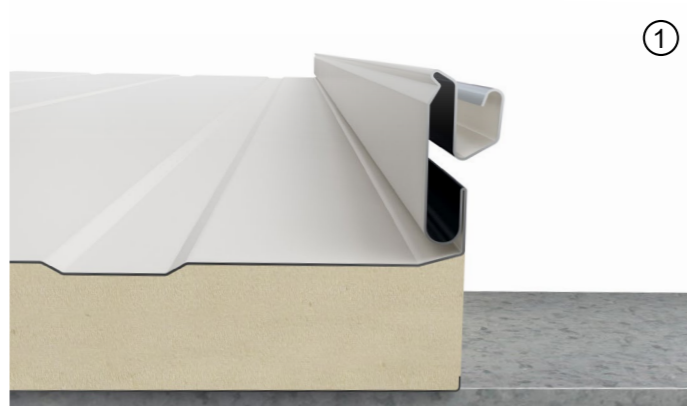
Na zahtjev
On request
Vanjska strana
External side
30
GODINA
GARANCIJE
YEARS
WARRANTY

TTACK®



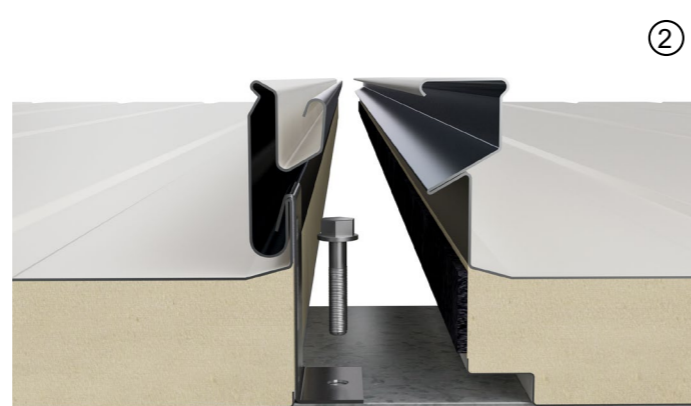
PUR PIR

Postaviti prvi krovni panel.
Position the first roof panel.



①

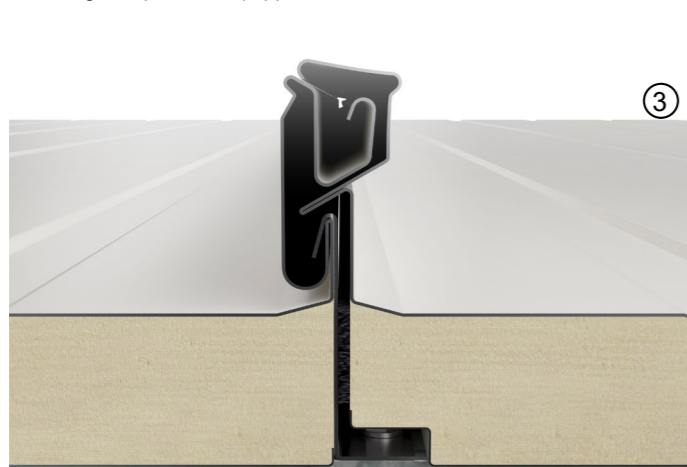
Postaviti drugi panel na mjesto, pritiskajući dichtung dok ne bude skroz pričvršćen za prvi panel.
Position the second panel slide it into place, Compressing the gasket until it is fully Attached to the first panel.



②

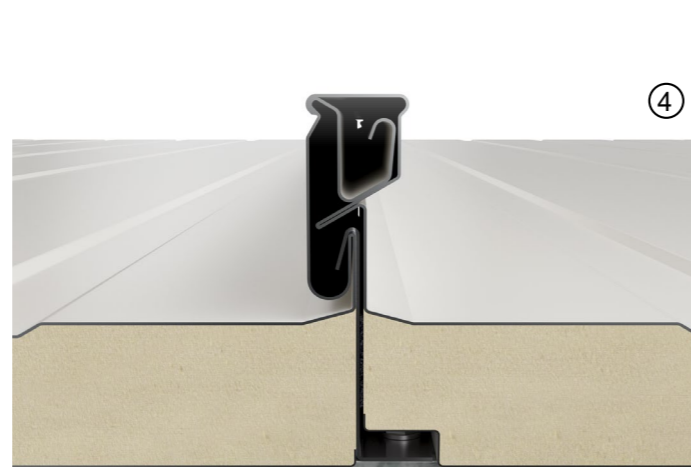
Pričvrstiti koristeći nosač za fiksiranje, što omogućava dilataciju spojeva. Mogućnost odabira između bočnog ili gornjeg pričvršćivanja. Za gornje pričvršćivanje, panel je opremljen kanalom za postavljanje vijka.

Fasten in place using a fixing bracket, which allows the expansion joints to slide. Choose between side fastening or upper fastening. For upper fastening, the panel is equipped with a channel to house the bolt.



③

TTack zvuk pokazuje da su paneli povezani.
The "TTack" sound indicates that the Panels are connected.



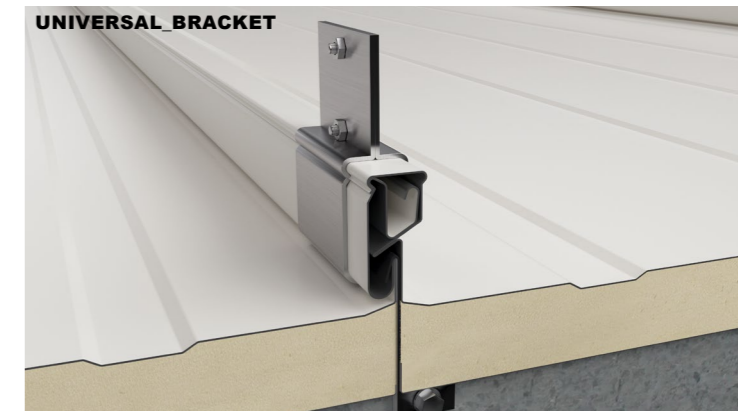
④

Ponaša se izvanredno u dodiru sa vodom. Posebni TTACK® sistem spajanja kreira dva prirodna sigurnosna kanala za odvod viška vode.

It performs incredibly well with water. The special TTACK® interlocking system creates two natural safety channels to drain away excess water.



WIND CLIP



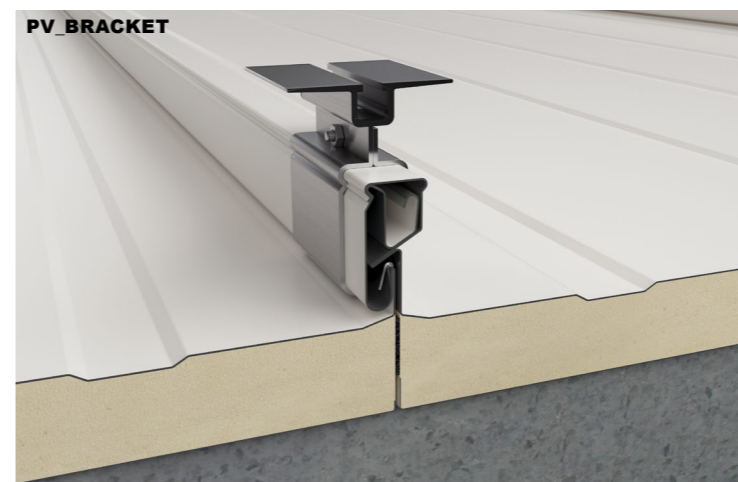
UNIVERSAL BRACKET

TTACK® dodaci: od spojnice za pričvršćivanje i pritezanje panela, do onih koji se koriste za pričvršćivanje fotonaponskih panela.

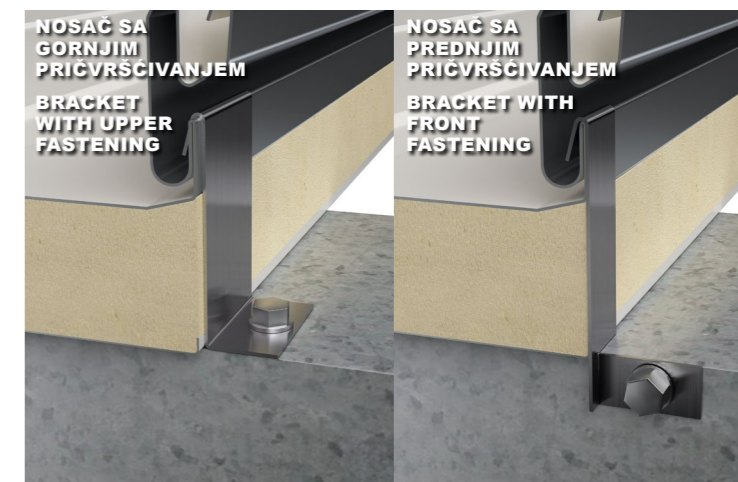
TTACK® accessories: from brackets for fastening and tightening the panels, to those used. To attach photovoltaic panels.

Mogućnost izbora prednjeg ili gornjeg povezivanja, utičaće na tip željenog TTACK® panela.

The decision to opt for a front connection rather than an upper connection will affect the type of TTACK® panel required.



PV BRACKET



NOSAČ SA GORNJIM PRICVRŠĆIVANJEM
BRACKET WITH UPPER FASTENING

NOSAČ SA PREDNJIM PRICVRŠĆIVANJEM
BRACKET WITH FRONT FASTENING



Na zahtjev
On request
Vanjska strana
External side
30
GODINA
GARANCIJE
YEARS
WARRANTY

PUR PIR

TTACK®

Minimalan nagib 1%

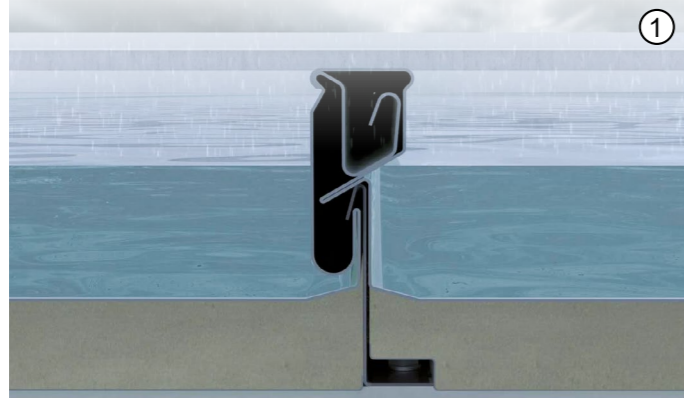
Maksimalna iskorištenost visine, u skladu sa zakonskim uslovima.

Mogućnost montiranja fotonaponskih modula **bez bušenja površine**.

Ušteda na vremenu montaže - brzo postavljanje sa posebnim "interlock" sistemom spajanja.

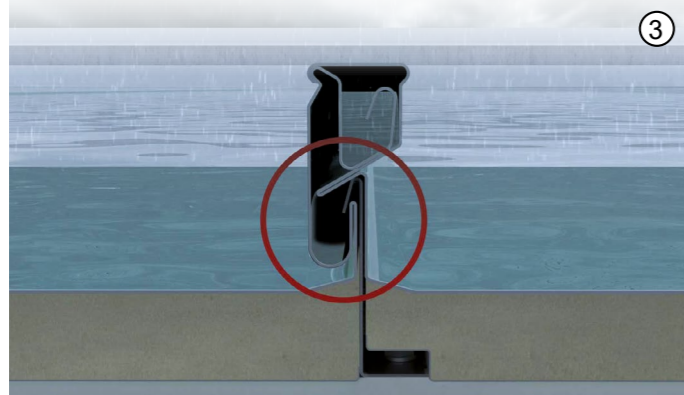
Prilikom intenzivne kiše, nivo vode može dosegnuti vrh rebra na TTACK® panelu.

Under intense rain, the level of the water could reach the top part of the rib on a TTACK® panel.



Za povećanu sigurnost, dodat je **DRUGI KANAL** da osigura potpunu vodootpornost krova.

For increased safety, a **SECOND CHANNEL** has been added to ensure the roof covering Remains fully watertight.



Minimum installation slope: 1%

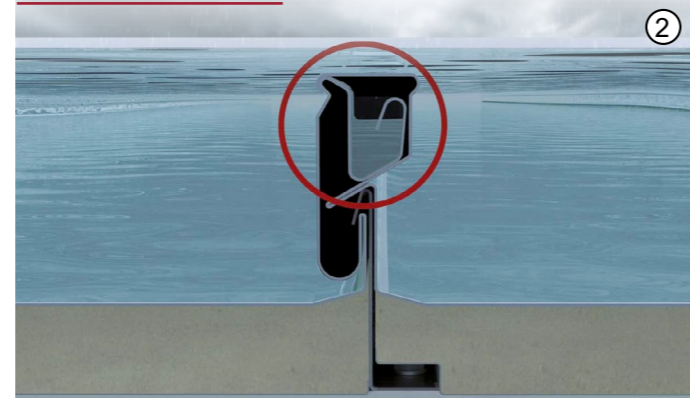
Exploits the maximum height allowed by municipal requirements.

Allows photovoltaic panels to be installed **without drilling the surface**.

Saves laying time - easy installation with the special interlock joint system.

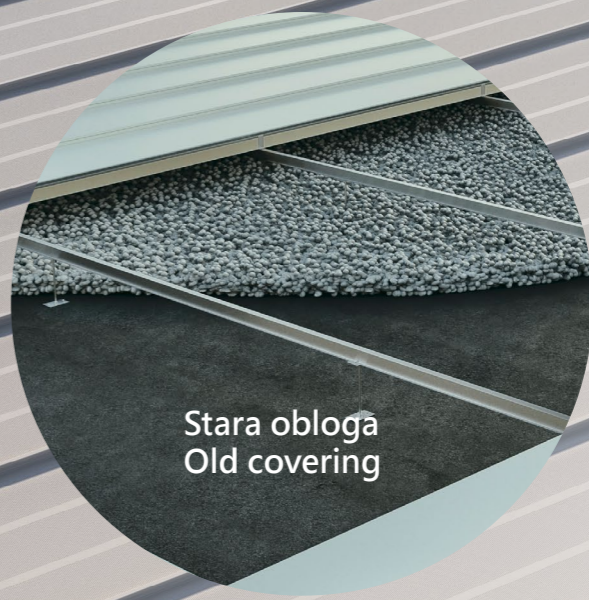
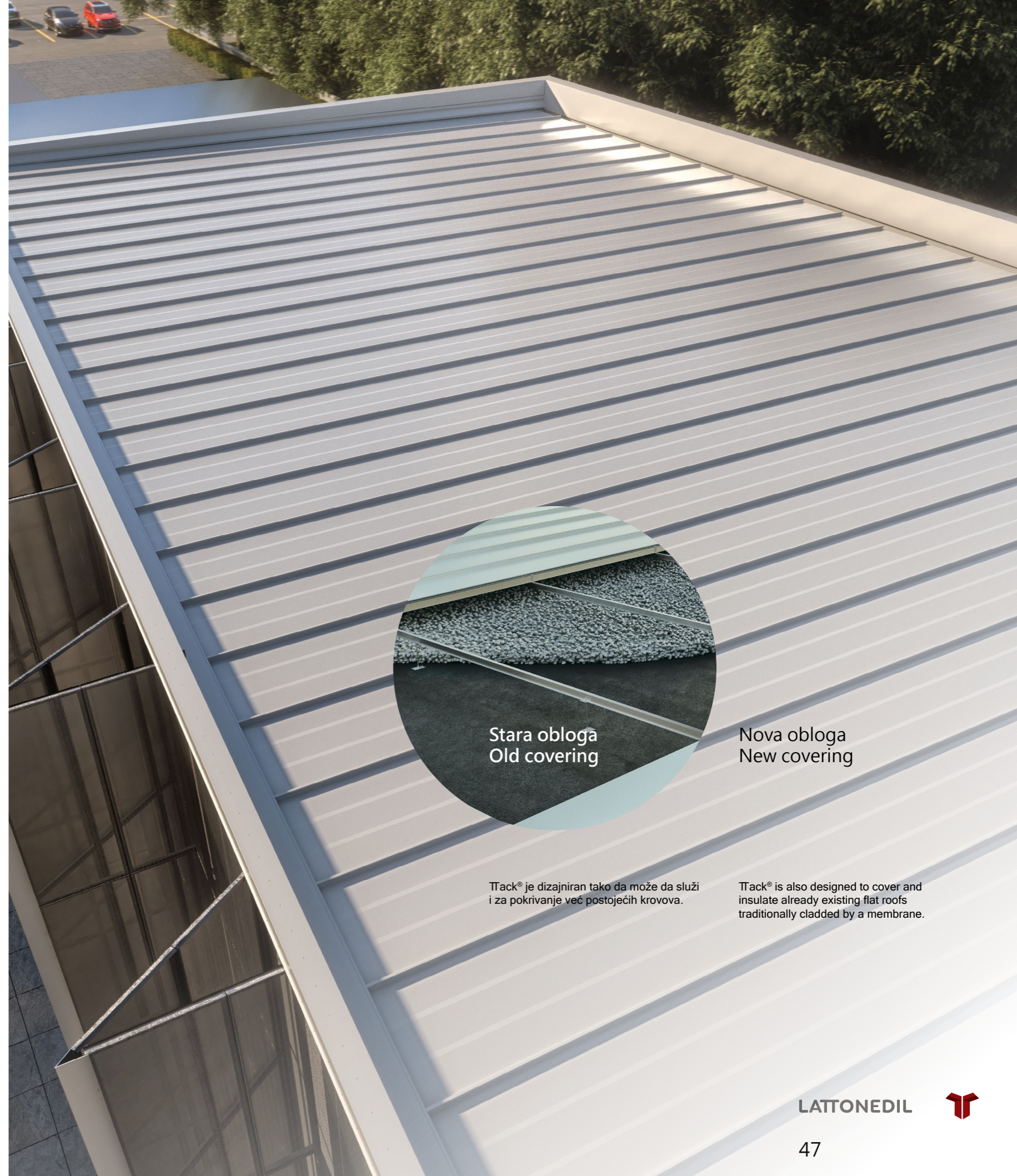
Pritisak vode zapečati rebro. Ako kiša istraje, može se filtrirati zbog kapilarnosti vode, u tom slučaju voda će se skupljati u **PRVOM SIGURNOSNOM KANALU**.

The pressure of the water seals the rib. If the rain persists, it may filter in due to water capillarity, in which case the water would be collected in the **FIRST SAFETY CHANNEL**.



Voda otiče kroz kanale u oluk čim Protok vode to dopusti.

The gutter as soon as the flow of water allows.



Stara obloga
Old covering

Nova obloga
New covering

TTack® je dizajniran tako da može da služi i za pokrivanje već postojećih krovova.

TTack® is also designed to cover and insulate already existing flat roofs traditionally clad by a membrane.



Na zahtjev
On request
Vanjska strana
External side
30
GODINA
GARANCIJE
YEARS
WARRANTY

PUR PIR

TTack®

Prvi i jedini na svijetu, panel za ravne krovove
The world's first and only panel for flat roofs

METALNE PODLOGE

SENDZIMIR sistem kontinuiranog vruće pocinčanog čelika (UNI EN 10346), premazan na kontinuiranim linijama ciklusima na bazi poliesterske smole, poliesterima visoke otpornosti ili PVDF (poliviniliden fluoridima) na vanjskoj strani. Na donju stranu panela nanosi se temeljni prajmer.

IZOLACIJA

Sastoji se od krute poliuretanske pjene koja je u skladu s evropskim propisima o reakciji na vatru.

- Sastav tipa poliuretanske smole (PUR, PUR B2 ili PIR podložno zahtjevu)
- Koeficijent toplotne provodljivosti $\lambda = 0,023 \text{ W/mK}$
- Prosječna gustina $40 \text{ kg / m}^3 \pm 10\%$
- Otpornost na pritisak $\geq 0,11 \text{ MPa}$ (pri deformaciji od 10%)
- Snaga istegljivosti $\geq 0,1 \text{ MPa}$
- Otpornost na sječenje $\geq 0,1 \text{ MPa}$
- Nehigroskopen kao materijal je više od 95% zatvorenih stanica
- Prianjanje na podloge 1 kg / cm^2
- U-vrijednost koeficijenta prolaska topline u skladu s EN14509

SPOJ

Spoj TTACK® panela je dizajniran da spriječi bilo kakvo curenje i ima termičke mostove. Neprekidni dhtung je umetnut tokom proizvodnog procesa.

STATICKE POJEDINOSTI

TTACK® paneli se klasifikuju kao samonosivi u skladu UNI EN 14509 propisu po kojem su definisani: "... panel koji je sposoban da, zahvaljujući svojim materijalima i obliku, podupire vlastitu težinu, a u slučaju panela pričvršćenih na razmaknute konstrukcije, sva primijenjena opterećenja (snijeg, vjetar, tlak zraka) i prijenos tih opterećenja na nosače." Vrijednosti opterećenja odnose se na panele postavljene vodoravno i podložne raspodijeljenom opterećenju, bez uzimanja u obzir toplinskih efekata, koji su provjereni od strane projektanta. Efekat puzanja za izolacioni materijal, prouzrokovan slučajnim preopterećenjima, uzima se u obzir u statičkom proračunu.



Za više informacija o certifikaciji CAM, kontaktirajte našu tehničku službu.

For further information on CAM certification, contact the technical department.

METALLIC COATINGS

SENDZIMIR sistem continuous hot-dip galvanized steel (UNI EN 10346), precoated on continuous lines with polyester, high-resistance polyester or PVDF (polyvinylidene fluorides) resin-based cycles, on the exposed side. A primer is applied to the underside of the panel.

INSULATION

Composed of rigid polyurethane foam that complies with European regulations concerning reaction to fire.

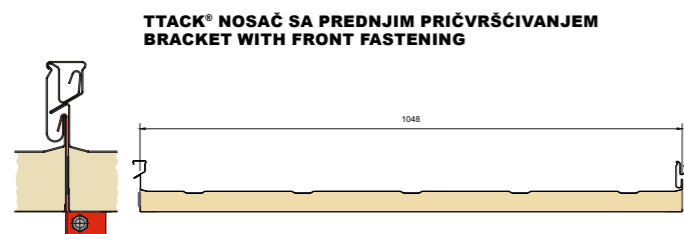
- Composition of polyurethane resin type formula (PUR, PUR B2 or PIR subject to request)
- Thermal conductivity coefficient $\lambda = 0.023 \text{ W/mk}$
- Average density $40 \text{ kg/m}^3 \pm 10\%$
- Compressive strength $\geq 0.11 \text{ MPa}$ (at 10% deformation)
- Tensile strength $\geq 0.1 \text{ MPa}$
- Shear strength $\geq 0.1 \text{ MPa}$
- Non-hygroscopic as material is more than 95% closed cell
- Adherence to support surfaces 1 kg/cm^2
- U-value thermal transmittance coefficient in accordance with EN14509

JOINT

The TTACK® panel joint has been designed to prevent any kind of leakage and has thermal bridges. A continuous gasket is inserted during the production process.

STATIC FEATURES

TTACK® panels are classed as self-supporting in accordance with that defined in the UNI EN 14509 regulation "... a panel capable of supporting, by virtue of its materials and shape, its own weight and in case of panels fixed to spaced structural supports, all applied loads (snow, wind, air pressure), and transmitting these loads to the supports." The load values refer to panels installed horizontally and subject to a distributed load, without taking into consideration thermal effects, which are verified by the designer. The creep effect for insulating material, caused by accidental overloads, is taken into account in the static calculation.



TTACK® NOSAČ SA PREDNJIM PRIČVRŠĆIVANJEM
BRACKET WITH FRONT FASTENING



TTACK® PANEL ZA VANJSKO FIKSIRANJE OBLIKOVANI PANEL
IMA ZATVARAČ PO CIJELOJ DUŽINI.
TTACK® RIBBED PANEL WITH UPPER SIDE FASTENING
FEATURES A FULL LENGTH SHIELD ON ALL THE SIDE.

Statička svojstva (kg/m²)
Static properties (kg/sq.m.)

NA DVA NOSAČA
SINGLE SPAN

| Debljina panela Panel thickness (mm) | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | TEŽINA WEIGHT (Kg/m ²) |
|--|-----|-----|-----|-----|-----|-----|--|
| 50 | 260 | 195 | 155 | 105 | 75 | | 10.84 |
| 80 | 415 | 315 | 255 | 205 | 155 | 120 | 12.04 |
| 100 | 520 | 390 | 315 | 260 | 215 | 170 | 12.84 |
| 120 | 625 | 470 | 380 | 310 | 265 | 220 | 13.64 |
| 150 | 785 | 590 | 470 | 390 | 335 | 290 | 14.84 |

Proračun statičkih dimenzija izveden u skladu sa Aneksom E UNI EN 14509 standard. Normalna granica otklona: $1/200 \ell$
Static sizing calculation performed in accordance with Annex E of the UNI EN 14509 standard. Normal deflection limit: $1/200 \ell$

| Debljina panela Panel thickness (mm) | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | TEŽINA WEIGHT (Kg/m ²) |
|--|-----|-----|-----|-----|-----|-----|--|
| 50 | 275 | 210 | 169 | 131 | 90 | | 13.23 |
| 80 | 435 | 325 | 269 | 215 | 170 | 135 | 14.43 |
| 100 | 540 | 410 | 335 | 275 | 230 | 185 | 15.23 |
| 120 | 645 | 485 | 395 | 335 | 285 | 235 | 16.03 |
| 150 | 795 | 605 | 485 | 410 | 345 | 310 | 17.23 |

Proračun statičkih dimenzija izveden u skladu sa Aneksom E UNI EN 14509 standard. Normalna granica otklona: $1/200 \ell$
Static sizing calculation performed in accordance with Annex E of the UNI EN 14509 standard. Normal deflection limit: $1/200 \ell$

| U toplotna provodljivost transmittance | 50 | 80 | 100 | 120 | 150 |
|--|------|------|------|------|------|
| W/m ² K | 0.44 | 0.28 | 0.22 | 0.19 | 0.15 |
| Kcal/m ² h °C | 0.38 | 0.24 | 0.19 | 0.16 | 0.13 |

TOLERANCIJE (vidi Uredbu UNICMI)

Debljina oblaganja: u skladu sa referentnim standardima za proizvode koji se koriste.
Dužina: ako je $\leq 3000 \text{ mm} \pm 5 \text{ mm}$; ako $> 3000 \text{ mm} \pm 10 \text{ mm}$
Debljina panela: ako je $\leq 100 \text{ mm} \pm 2 \text{ mm}$; ako $> 100 \text{ mm} \pm 2\%$
Odstupanje perpendikularnosti: = horizontalno odstupanje tako $\leq 0,6\%$ od nominalne pokrivne širine
Od kvadrata: max. 3 mm

ZAŠTITA METALNIH OBLAGANJA

Svi paneli napravljeni od prefarbanih metala isporučuju se na zahtjev s ljepljivom zaštitnom folijom od polietilena kako bi se spriječio oštećenje vanjskih slojeva. LATTONEDIL neće biti odgovoran za bilo kakvo oštećenje slojeva u slučaju da se materijal isporučuje bez zaštitne folije. Zaštitna folija mora biti potpuno uklonjena prilikom ugradnje panela, u svakom slučaju u roku od trideset dana od kada je materijal pripremljen. Paneli koji su još uvijek pokriveni zaštitnom folijom ne smiju biti izloženi izravnom djelovanju sunčeve svjetlosti duže vrijeme.

TOLERANCES (See UNICMI regulation)

Coating thickness: in accordance with reference standards for the products used.
Length: if $\leq 3000 \text{ mm} \pm 5 \text{ mm}$; if $> 3000 \text{ mm} \pm 10 \text{ mm}$
Panel thickness: if $\leq 100 \text{ mm} \pm 2 \text{ mm}$; if $> 100 \text{ mm} \pm 2\%$
Perpendicularity deviation: so = horizontal deviation so $\leq 0.6\%$ of the nominal width covered
Out of square: max. 3 mm

PROTECTION OF METALLIC COATINGS

All of the panels precoated with the metallic coatings mentioned are supplied on request with an adhesive polyethylene protective film to prevent damage to the coated layer. LATTONEDIL will not be held liable for any damage to the coating in the event that the material is to be supplied without the protective film. The protective film must be completely removed during installation of the panels, and in any case within thirty days of when the material is prepared. Panels still covered with the protective film must not be exposed to direct sunlight for long periods of time.

