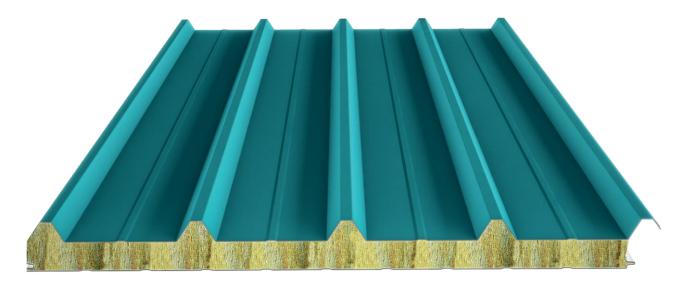


# **OPTI 5T Roof Panel**



#### **Product Description**

It can be safely used in buildings with high fire risk and in buildings where maximum fire resistance is required, while its five-rib form allows wide openings to be safely crossed. Roofing can be done with a 10% slope. Provides advantages in fast assemblies thanks to its lateral binned panel combination. Offers high acoustic performance thanks to its rockwool inner filling material.

## **Place of Production**

Balıkesir

#### **Fields of Application**

Structures with steel or prefabricated concrete carrier system, such as:

- Industrial Buildings
- Military Buildings
- Social Buildings
- Agricultural Buildings
- Sports facilities
- Worksite buildings
- Silos
- Hypermarkets
- Shopping malls
- Marketplace buildings
- Administrative buildings

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## **Performance Assessment**

Offers the best fire resistance values.

Fast and smooth installation allows for saving both time and labor.

Provides high-quality sound insulation as well as thermal insulation.

Does not require any additional coating such as plaster, paint, etc. thanks to its color surface.

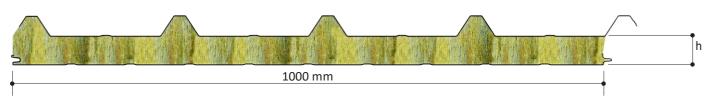
Exterior paint options (Polyester, PvdF, Plastisol, PVC, etc.) are available for application surface.

It does not degrade, rot or mold over time.

High sound insulation performance.

Applicable by minimum 10% elevation as roofing.

#### **Sizes**



h: 50-60 mm

| Effective Width | 1000 mm                        |
|-----------------|--------------------------------|
| Minimum length  | 3 meter                        |
| Maximum length  | Depends on Shipping Conditions |

## **Rockwool**

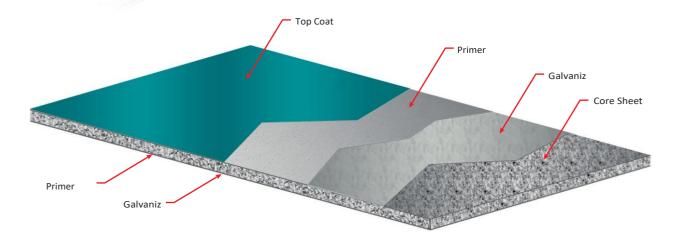


| Rockwool Density                 | 95 (±10) kg/m³ |
|----------------------------------|----------------|
| Rockwool thickness               | 50- 60 mm      |
| Heat Conduction Coefficient      | 0.033 W/mK     |
| Fire Classification (EN 13501-1) | A1             |
| Water absorption                 | 2 by volume    |
| Temperature Resistance           | 600 ºC         |
| Acoustic Insulation Rw [dB] ≥    | 30             |
| Water Vapor Diffusion (EN 12086) | 1              |





## **Metal Surfaces**



## **Prepainted Galvanized Sheet Metal Surface**

| Metal Type                     | Prepainted Galvanized Sheet                                    |
|--------------------------------|--|
| Upper Metal Thickness          | 0.50 mm  |
| Lower Metal Thickness          | 0.40 mm  |
| Thickness Tolerance (EN 10143) | Nominal  |
| Sheet Quality (EN 10327)       | DX51 D+Z Painted Galvanized Sheet (polyester finish on primer) |
| Paint Type                     | Polyester, PvdF, Plastisol, PVC                                |

## Thermal Conductivity Values Rockwool Thermal Conductivity Values

| Panel Thickness | U Thermal Conductivity<br>(W/m²K) | R Thermal Conductivity<br>(m²K /W) | R Thermal Conductivity (ft <sup>2</sup> °F h/Btu) |
|-----------------|-----------------------------------|------------------------------------|---|
| 50 mm           | 0.585                             | 1.708                              | 9.698   |
| 60 mm           | 0.497                             | 2.011                              | 11.418  |

According to TSE EN 14509





#### Mechanical

| Yield Strength of Steel Surfaces            | min. 220 N/mm²            |
|---|---------------------------|
| Panel Tensile Strength                      | Min. 0.018 Mpa            |
| High-Temperature Transverse Tensile Modulus | min. 0.04 Mpa             |
| Core Material Shear Resistance              | min. 0.06 Mpa             |
| Core Material Shear Modulus                 | min. 3.0 Mpa              |
| Core Material Compression Resistance        | min. 0.07 Mpa             |
| Free Bending Moment Capacity                | min. 2.5 KNm/m (Straight) |
|   | min. 1.5 KNm/m (Reverse)  |

According to TSE EN 14509

#### **Tolerance Values**

| Panel Height                                      | Panel Thickness | Panel Cover Width     | Squareness Deviation                                      |
|---|-----------------|-----------------------|---|
| if L<=3000 mm., ±5 mm.,<br>if L>3000 mm., ±10 mm. | D ≤ 100mm ±2mm  | ±2mm for all profiles | 0.6% of s ≤ nominal cover thickness / (Width (w) x 0.006) |

## **Standard Package Quantities**

| Thickness<br>(mm) | 50 | 60 |
|-------------------|----|----|
| Quantity          | 14 | 12 |

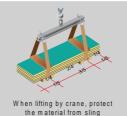
## **Standart Colour Options**

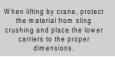


### **Joint Details**



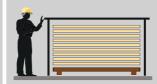
#### **Protection of Sandwich Panels**



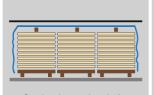




Stowed panels should be lifted at both ends if the panel is short, and at the ends and in the middle if the panel is long. Do not drag the panel. Dragging can cause scratches, especially on painted panels.



Even in short periods of time, protect the panels from external factors, and if possible, choose an area with very little slope to prevent water accumulation.



Panels to be stored on site for long periods should be stacked in covered areas, if possible.



Do not step on panels.

