

## Panel Tile Dune



### STATISTICAL CHARACTERISTICS:

Sandwich panel made of rigid polyurethane foam of high insulating power and faces of high-quality steel sheet.

Rigid foam made of polyisocyanurate (PIR) or polyurethane (PUR has a low thermal conductivity of only  $0.023 \text{ W/m}^2 \cdot ^\circ\text{K}$  providing good thermal and acoustic insulation.

The chemical characteristics of the foam give it a high durability and resistance to external agents both physical, chemical and biological.

The high quality of the steel with which the two profiles of the faces are manufactured gives the panel a high performance in the construction of imitation tile covers.

The sheets on the faces of our panels are coated with a layer of 25-micron polyester paint that gives it a high resistance to the environment.

The panels can be delivered in different finishes according to the needs of our customers, different colors in pre-lacquered or galvanized.



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### USES AND APPLICATIONS:

Manufacture of imitation tile roofs for industrial building, residential, sports facilities, commercial, prefabricated houses, prefabricated house, bungalow, pergolas, parking, roof rehabilitation.

With the assembly of these panels a considerable decrease in the weight of the roof is achieved.

The design of the longitudinal joints and macmacguing of the steel faces allow a total sealing against the environmental agents.

The panel anchorage system together with the seal watertightness allows quick and easy placement of the cover, reducing assembly times.

Our tile roof panels provide a high finish both structural and aesthetic.

### PHYSICAL CHARACTERISTICS:



DEFORMAC S.L. C/ Dels Teixidor, 6 Banyeres de Mariola (Alicante)  
[Tel:966568008](tel:966568008), [www.deformac.com](http://www.deformac.com), [comercial@deformac.com](mailto:comercial@deformac.com)



## Panel Tile Dune

<b>Thermal Conductivity (PIR/PUR)</b>	0.023-2	· W/mm K
<b>Density of the insulator core</b>	40-4	kg/m <sup>3</sup>
<b>Panel thickness</b>	<b>50</b>	mm (promedio)
<b>Panel thickness min (E).</b>	<b>40</b>	mm
<b>Linear meter weight</b>	11,73	Kg/m
<b>Square meter weight</b>	10,67	Kg/m <sup>2</sup>
<b>Thermal transmittance</b>	0.51	W/m <sup>2</sup> K
<b>Tensile strength</b>	0.06-0.02	Mpa
<b>Compression resistance</b>	0,076.0.007	Mpa
<b>Resistance moments flectors</b>	0.076-0.009	Mpa

### CHEMICAL FEATURES:

#### Insulating core

Rigid polyisocyanurate (PIR) or polyurethane (PUR) foam, injected continuously.  
 VOC content < 1.5% weight.

#### Outer faces

Cold-profiled sheet from S220GD type structural steel coil, certified quality.  
 Hot galvanized sheet according to EN 10346.

#### Coatings

The panel can be manufactured with various exterior coatings to ensure maximum durability, depending on the environment and the intended conditions of use:

Polyester lacquer (25 microns)

Granite HDX (55 microns)

PVDF / Polyvinylidete Fluoride (35 mm)

PET (50 microns) (for panel inner face only)

Granite FARM (35 microns) for agricultural or livestock sector.



# Panel Tile Dune

## STRUCTURAL FEATURES:

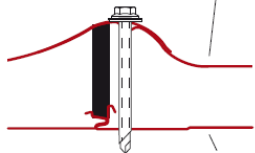
Slightly profiled bottom face.

Standard sheet metal thicknesses: 0.5 mm (other thicknesses upon request).

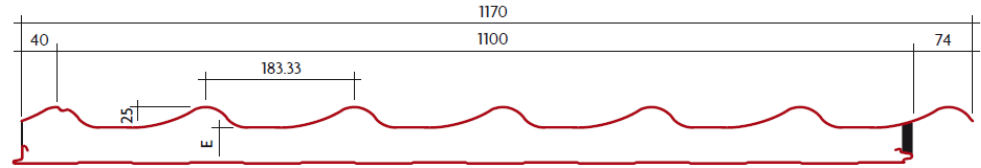
<b>Useful width:</b>	1,000	Mm
<b>Manufacturing length</b>	2 to 10	M
<b>Number of waves</b>	7	N °
<b>Wave step</b>	183	Mm
<b>Long shingle</b>	350	Mm
<b>Solape transversal length</b>	150	Mm

### Detalle del solape Longitudinal:

Acabado chapa superior (Prelacado)

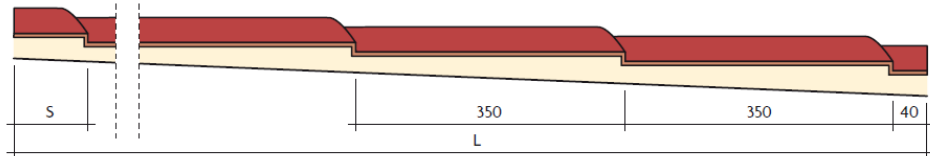
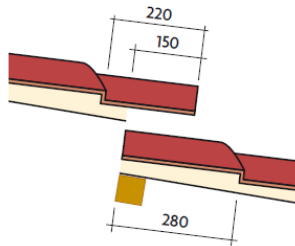


Acabado chapa inferior (Prelacado Blanco Pirineo o Imitación Madera)



Pendiente mínima recomendada 10%

### Detalle del solape Transversal:



S varía según el largo de la plancha

### Calculation criteria:

Maximum permissible voltage of the plate T-1400 kg/m<sup>2</sup>

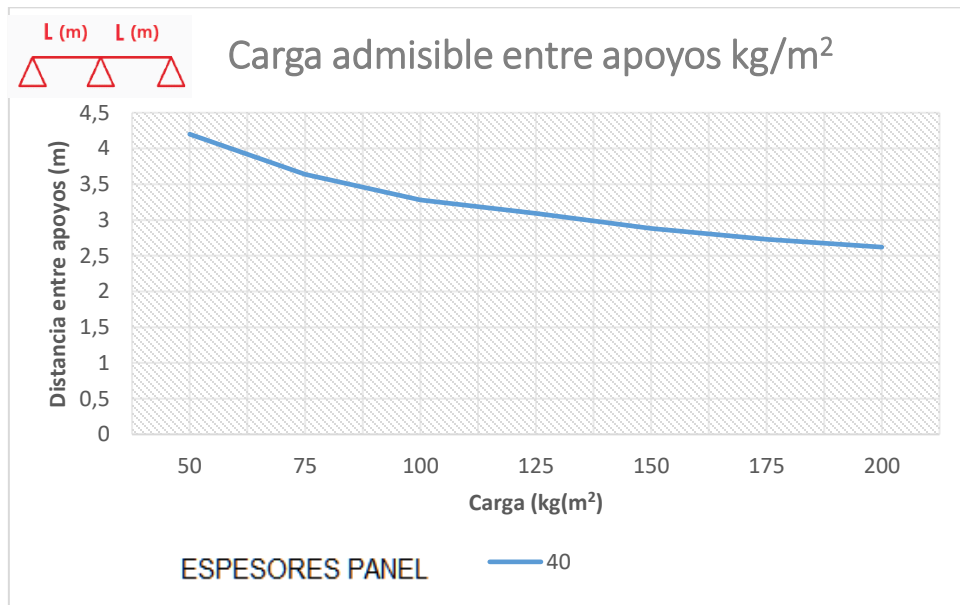
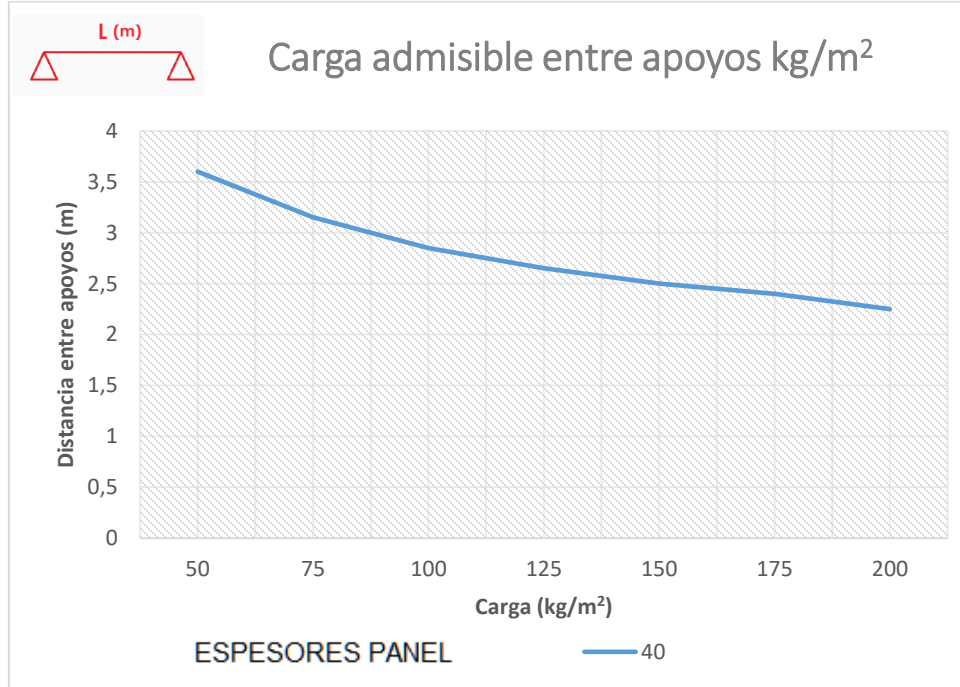
Maximum permissible arrow  $f = L/200$  (L being belt spacing)

### Regulations:

UNE 14509 Self-supporting insulating sandwich panel double metal faces.

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## GRAPHS OF MAXIMUM LIGHTS BETWEEN SUPPORTS



The graphs show the maximum allowable distance between supports depending on the load (uniformly distributed) and the thickness of the panel.



## Panel Tile Dune

### CHARACTERE AND FIRE RESISTANCE STATISTICS:

**PIR dune shingle panel:**

Euroclass **B,s2,d0** (fire on decks)

**PUR Dune Tile Panel:**

Euroclass **B,s2,d0** (fire on decks)

The reaction to fire has been determined by laboratory tests (EN 13501).

### QUALITY AND CERTIFICATIONS:

Our insulating panels are manufactured with the best materials available on the market, both in the sheet steel (pre-lacquered or galvanized) used and in the products used in the manufacture of the core foam complying with the standards:

**UNE 14509** For Sandwich panel, marked according to standard.



**UNE-EN 10346** Steel flat products coated continuously by hot immersion. Technical conditions of supply.

**UNE-EN 10169** Flat steel products, continuously coated with organic (prelaced) materials.

**UNE-EN 10143** Steel sheets and bands with continuous metal coating by hot immersion. Dimensional and shape tolerances.

### OTHER CHARACTERISTICS:

**WATER TIGHTNESS AND STABILITY:**

Our design, maca pad and gasket systems make our water-water-waterproof insulating panels and atmospheric agents, as well as excellent thermal and acoustic insulation.

The foam cores both those manufactured in PIR and PUR do not adsorb water, presenting excellent stability against biological, physical and chemical agents, preserving their characteristics of thermal, dimensional and acoustic insulation.

**PROTECTION OF PERSONS:**

Our products comply with the European REACH regulation containing substances classified as extremely worrying (SVHC) according to Annex XIV to that regulation.

A **Safety Data Sheet** is available to our customers.



## Panel Tile Dune



### **ENVIRONMENTAL CONSERVATION MEASURES:**

#### **TREATMENT OF RESIDUE:**

The residue from the cuts produced during assembly is formed by polyurethane foam and sheet metal that have an easy separation by tensile tearing.

They must be separated, classified with the corresponding LER codes and respirator by an authorized waste manager in accordance with local legislation in force at the time the waste occurs.

When the panels of a roof (shingle type) are changed for any reason, the same treatment should be given to the residue produced.

At all times the environment of waste products produced by the handling of our panels must be protected in order to contribute to the maintenance and improvement of the environment.

#### **ENVIRONMENTAL SUSTAINABILITY:**

Our products comply with the European Environmental Regulations and REACH containing substances classified as extremely worrying (SVHC) according to Annex XIV to that regulation.

A **Safety Data Sheet** is available to our customers.

