ROBS®

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Coated steel panels (plastisol, polyester, polyurethane, PVDF) They are easy to lay and stand the test of time.

ZONING INDUSTRIEL, SUR LE MEEZ
B-4980 TROIS-PONTS

The Tile Panel is a product manufactured by ROBS Ltd

32 (0) 80 68 49 10 32 (0) 80 68 46 71 **www.robs-sa.com**

PRODUCT CHARACTERISTICS

Use

Using ROBS® Tile Panels is an economical solution for new buildings and the renovation of old roofing; in certain cases ROBS® Tile Panels can be placed upon the existing base.
The panels are made to the exact length needed to adapt to the gradient of your roofing, thus avoiding cutting and offcuts.

Advantages

Reliable, long-lasting and aesthetically faultless, ROBS® Tile Panels bear a perfect resemblance to conventional tiles and require practically no maintenance.

Furthermore they are adapted to roofs with a very slight pitch - up to a minimum slope of 9%.

With a weight of +/- 5kg/m^2, ROBS® Tile Panels are light and easy to lay without needing any specific tools.

They have a patented waterproofing system.

Availability

ROBS® produces and markets 2 types of panels.

The dimensions of the Tile Panels:

	ECONOROBS®	BIGROBS®
		
	The ECONOROBS® Panel: used for all types of roofing	**The BIGROBS® Panel: principally used in the laying of large roof coverings (such as industrial buildings, ware-houses etc.) for aesthetic and water drainage reasons**
Overall Width of Panel (mm)	1180	1100
Usable Width of Panel (mm)	1100	1000
Length of Panel (mm)	From 1050 to 8400*	
Length of Tile (mm	350**	400**
Spacing between centre lines of laths (mm)	350	400
Minimum pitch for application	9%	

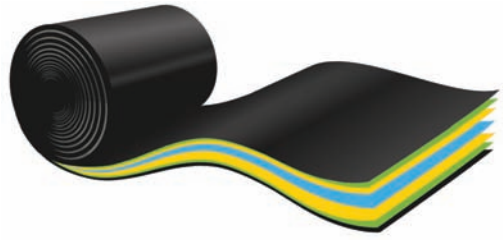
*All of our Tile Panels are made-to-measure from 1.05m to 8.40m in length.
** The last upper tile (next to the ridge) is however different and varies according to the length of panel required: it will be smaller or larger depending on the overall manufactured size.

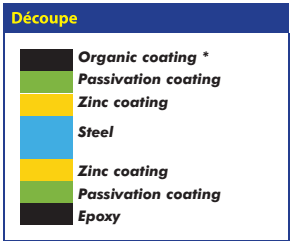
PRODUCT CHARACTERISTICS

Colours

The availability and deadlines vary according the industrial quantities.
The colours are shown for information only; the applied pressure-forming process makes it impossible to reproduce the exact tint or shade.

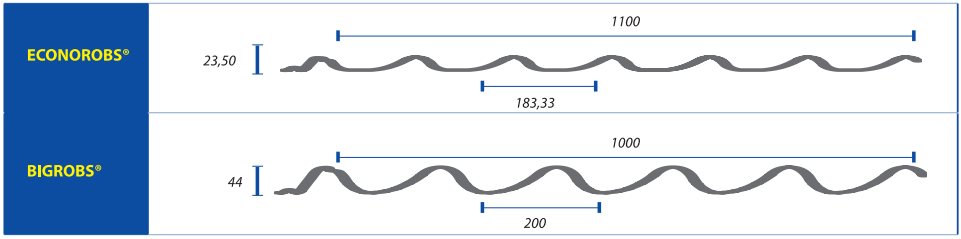
Composition





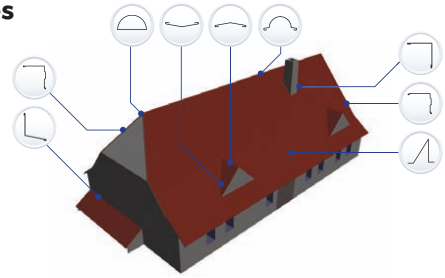
** Plastisol 200µ, polyurethane 50-60µ, Polyester Matt 35µ, Polyester 25µ. Contact us for very specific climatic conditions.*

Profile

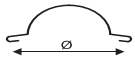


ACCESSORIES

The main accessories



HALF ROUND RIDGE TILE



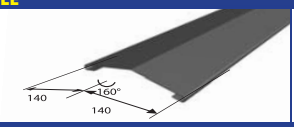
Ø 220 mm = length 2,10 m
Ø 310 mm = length 2,50 m

RIDGE BUTT TILE

Ø220 mm = small model
Ø310 mm = large model

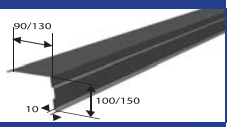
FLAT OR HIP RIDGE TILE

length 2,00 m



EDGE PIECE

130/150 mm = 3,05 m long
90/100 mm = 2,10 m long

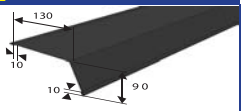


VALLEY CHANNEL

length 2,00 m

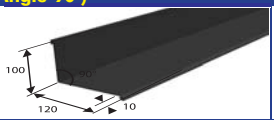
GUTTER CONNECTING PIECE

length 2,00 m



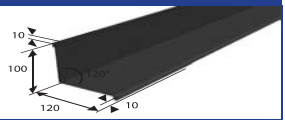
WALL FLASHING (Right Angle 90°)

length 2,00 m



120° FLASHING

length 2,00 m



SNOW BARRIER

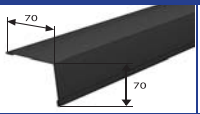
length 2,00 m

FLAT SHEET METAL

length 2,00 m
Width = 1,25 m

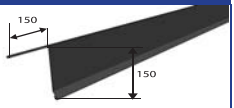
CHIMNEY CORNER

length 2,00 m



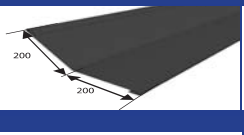
RIDGE ON WALL SURFACE

length 2,00 m



2 PITCH JOINT

length 2,00 m



STRETCH OF DRAINAGE PIPE

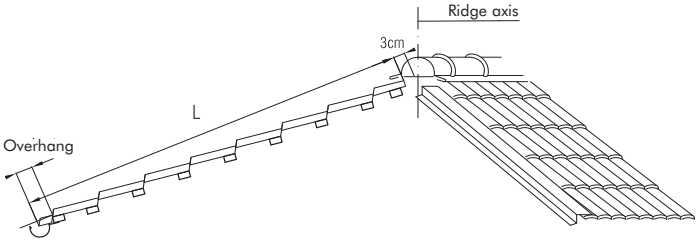
length 2,00 m
Base 50 to 100mm

WATERTIGHT SEAL

FOR ECONOROBS® AND BIGROBS®
Lengths: 1,10m (EconoRobs®)
1,00 m (BigRobs®)
Light grey polyethylene
For placing below panels
For placing below the ridge

SELF-TAPPING WATERPROOF SCREWS

Self Tapping screw
4,8 mm x 35 mm
Use: securing the panels
Self Tapping overlap screw
4,8 mm x 20 mm
Use: Securing steel to steel



TAKING THE MEASUREMENTS

The length of the sheets:

The measurements for ROBS® Tile Panels are taken by measuring the slope dimensions perpendicularly to the gutter.

The measurements should be taken from the centre of the ridge -3cm (so as to leave space for ventilation) down to the start of the gutter +3cm (for a gutter of 100mm diameter, for example)

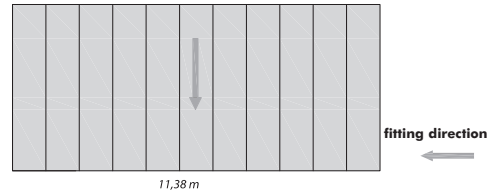
The number of panels:

The number of panels is determined by dividing the length of the roofing by the usable width of the tile panel.

Usable widths : EconoRobs® = 1,10m
BigRobs®= 1,00m

An example with EconoRobs® Tile panels

11,38m / 1.10m=10.34 pieces or 11 panels of 5.38m



For more complex roofing (with awning, double slope etc.) which requires a particular layout, it is necessary to make a scale diagram in order to determine the number and length of panels to be used.
The tile panels are always transformed into rectangular profiles.

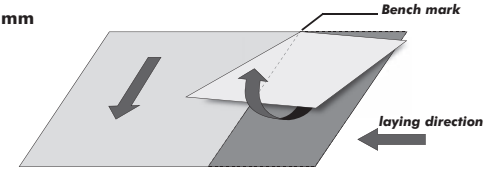
To calculate the length of the panels when laying on other kind of roofs (awning, hipped roofing, multiple panels,...) see our website www.robs-sa.com for further information and conditions of use.

LAYING THE TILE PANELS

Start laying the ROBS® Tile Panels on the right hand side of the roof so that the drainage channels are overlapped with one wave.

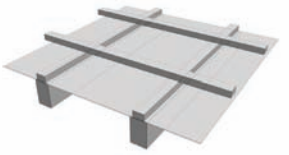
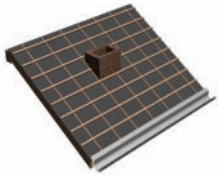
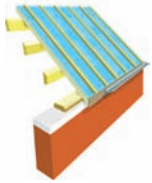
For very long roofs, shift the lower end of the 1st panel 1mm to the left for each metre of the slope.

Example: if the slope measures 4.50m move it 4.50mm to the left.



Laying the different roofing items

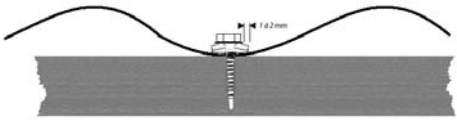
Tile Panels have 3 kinds of use:

New Roofs	Renovation by Over Roofing	Sandwich Panel Roofing
		
Lay a subroof covering before the cross-laths and then the laths at regular intervals (according to the spacing needed for each type of panel)	For laying over shingle roofs, synthetic slate roofs etc.	The cross-laths and sub roofing are integrated in this self-supporting system.
Laying Order for the different elements		
1. Rafters **2. Sub-Roofing** **3. Counter Laths** **4. Laths** **5. Tile Panels**	**1. Existing Roof** **2. Counter-laths** **3. Laths** **4. Tile Panels**	**1. Insulated self-supporting panels with counter-laths incorporated.** **2. Laths** **3. Tile Panels**

Fixing

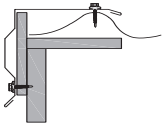
Fixing the Panels

Fixing should always be done **<u>at the bottom of the waves</u>** below the tile's cross fold. To ensure optimal water-tightness the EPDM joint must be compressed and jut 1 to 2mm outside of the aluminium washer. The creation of expansion holes is not necessary.



Fixing the accessories

The accessories (roof edges, flashing, ROBS® ridge tiles) are fixed using what is known as 'overlap' screws (4.9x20mm) which have the specific function of joining pieces of steel together.

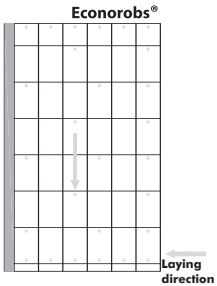


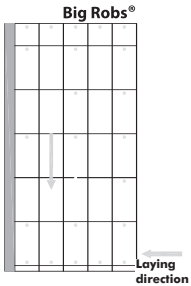
The fixing layout

As a general rule the panel tiles are always secured **<u>at the trough of the wave</u>** in the following places:

- One fixation per tile for the first row of tiles next to the gutter.
- One fixation per tile for the row next to the ridge.
- One fixation per tile next to the flashing or roof edge.
- A few surface fixations (on average 7 to 8 screws/m²)

Secure all items using an electric screwdriver (fitted with a suitable bit) and self-tapping screws; <u>this dispenses with any prior drilling operation</u>. Deposits of steel filings, shavings or chips from the use of a drilling or boring machine may cause oxidation and result in serious damage to the roof covering.





Step 1

Make sure that the load-bearing roof frame is sufficiently strong, and lay the horizontal members MAXIMUM 40-50 cm apart.

Step 2

Lay a subroof covering.

Step 3

Secure the vertical rafters.

Step 4

Nail the tile laths in from below then upwards so that the tile panel is in the correct place (clearance between ECONOROBS®=35cm, BIGROBS®=40cm)**

Step 5

Mount the gutter connection pieces and the panel joints.

Step 6

*Screw down the panels perpendicular to the gutter staring from the bottom edge of the slope and from right to left.**

Step 7

*Fix the roof edges using the overlap screws **

Step 8

*Fix the ridge tiles to the flashings and place the butts (overlap screws).**

NEVER use grinding machines ('circular saws') or any device that may damage the surfaces. Treat the cut out parts and retouch using suitable products. Metal residues or swarf, shavings, etc., should be removed using a fine brush. Dirt that occurs with time may be cleaned off using suitable non-aggressive detergents.