

# Rocksteel® Roof

Profiled roof system, slope  $p \geq 7\%$  insulated with a rockwool core, fire reaction certification

PRODUCED IN:  
ITALY



ROOF

FIRE RESISTANCE



Self-supporting panel system, insulated with rockwool for roof internal and external wall buildings.  
The ROCKSTEEL® ROOF panel, is manufactured in accordance with a system patented by Metecno, and consists of a profiled external steel facing, an internal micro-ribbed liner, with an insulation core of high density orientated rockwool, arranged perpendicular to the plane of the panel and positioned in strips, with longitudinally off-set and transversally compacted joints, so to have a perfectly monolithic panel.  
The ribs of the external metal sheet are filled with shaped mineral wool strips.  
Maximum panel length: L = 15,500 mm.



### External and internal sheet

The following materials can be used:  
– Prepainted galvanised steel S 280 GD  
– Stainless steel AISI 304 - or AISI 430  
Nominal thickness: 0.5 - 0.6 - 0.8 mm  
Paint: METCOLOR System

### Insulation

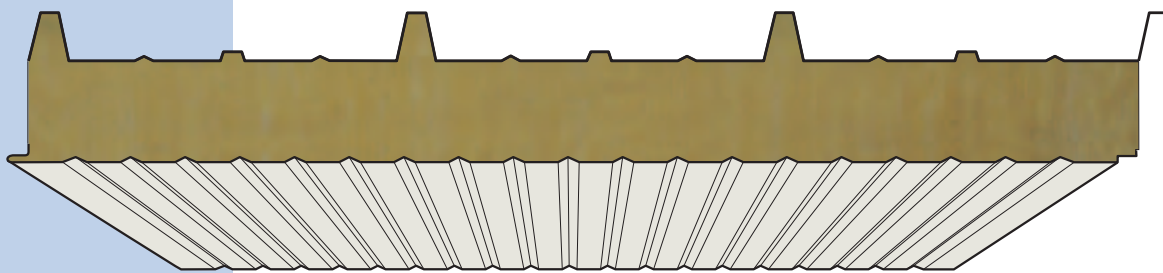
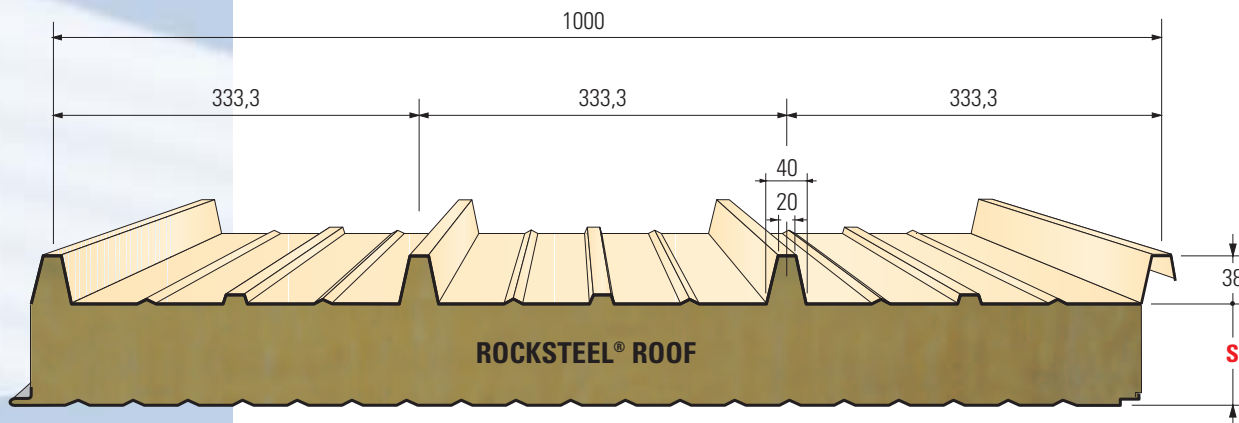
Rockwool, density: 100 kg./m<sup>3</sup>  
Thickness: 50 - 80 - 100 - 120 mm.

### Reaction to fire

Reaction to fire is the degree in which a material resists combustion. With regard to this, materials are assigned a class (0 through 5): the higher the class, the higher the degree of combustion.  
The ROCKSTEEL® ROOF panels, 50 - 80 - 100 - 120 mm thick, tested at the Istituto Giordano S.p.A., pursuant to the Ministerial Decree of 26/6/84, were classified 0/1 for reaction to fire in the roof position. Since the panel consists of two steel sheets with a layer of rock wool in between, the class 0 refers to the external surface and the class 1 to the insulation.

### Table of safe spans

Values guaranteed with steel sheets, thickness 0.5 + 0.5 mm. The spans *l* in metres, as a function of a uniformly distributed load *p* (daN/m<sup>2</sup>), have been obtained from tests carried out in Metecno laboratories and calculated to provide a deflection limit:  $f \leq l/200$  of the span and a minimum safety coefficient that complies with the UEAtc standards for insulated panels, which have been established and are implemented by primary European Certifying Organizations.



S mm	K		Panel weight kg/m <sup>2</sup> 0,5 + 0,5	p = (daN/m <sup>2</sup> )							p = (daN/m <sup>2</sup> )							
	Kcal m <sup>2</sup> h °C	Watt m <sup>2</sup> °C		80	100	120	150	200	250	300	80	100	120	150	200	250	300	
50	0,59	0,68	15,3	l =	3,52	2,98	2,59	2,16	1,71	1,41	1,18	3,06	2,59	2,25	1,88	1,49	1,23	1,03
80	0,40	0,46	18,3	l =	4,76	4,26	3,70	3,02	2,29	1,84	1,54	4,14	3,70	3,22	2,63	1,99	1,60	1,34
100	0,32	0,38	20,3	l =	5,45	4,69	3,94	3,20	2,43	1,96	1,63	4,74	4,08	3,43	2,78	2,11	1,70	1,42
120	0,28	0,32	22,3	l =	6,13	5,12	4,29	3,48	2,65	2,13	1,78	5,33	4,45	3,73	3,03	2,30	1,85	1,55

