



Del Carmen Product Data

Fixing Del Carmen slates poses no problems for an experienced slater. They can be fixed both by traditional methods and by the modern hook system. SSQ can provide fixing details of both methods.

On roofs, Del Carmen slates are suitable for pitches as low as 17°, subject to proper detailing and fixing. When fixed correctly, Del Carmen offers a life expectancy generally in excess of that of the building.

Nail Fixing. Minimum Recommended laps in mm for different exposures and roof pitches



Moderate exposure (driving rain index between 3 and 7m²/s)

Roof pitch

Slate size (mm)	85°	45°	40°	35°	30°	25°	22½°	20°
600x300	50	65	75	75	75	95	105	115
500x250	50	65	65	75	75	95	105	115
450x300	50	65	65	75	75	95	105	115
400x250	50	65	65	75	75	100	115	125
400x200	50	65	65	75	75	100	-	-
350x200	50	65	65	75	75	95	-	-
300x200	50	65	65	75	75	-	-	-

Severe exposure (driving rain index greater than 7m²/s)

Roof pitch

Slate size (mm)	85°	45°	40°	35°	30°	25°	22½°	20°
600x300	65	75	75	85	95	105	125	135
500x250	65	65	75	85	95	105	125	-
450x300	65	65	75	85	95	105	125	-
400x250	65	65	75	90	100	105	-	-
400x200	65	65	75	100	100	100	-	-
350x200	65	65	75	90	95	100	-	-
300x200	65	65	75	75	75	-	-	-

Hook Fixing. Minimum Recommended laps in mm for different exposures and roof pitches



Moderate exposure (driving rain index between 3 and 7m²/s)

Roof pitch

Length of roof slope (m)	75°	45°	40°	35°	30°	25°	20°
0 – 5.5	65	80	90	96	110	120	135
5.6 – 10.9	70	85	95	105	120	130	145
11.0 – 16.0	75	95	105	110	125	140	155

Severe exposure (driving rain index greater than 7m²/s)

Roof pitch

Length of roof slope (m)	75°	45°	40°	35°	30°	25°	20°
0 – 5.5	70	90	100	105	120	135	150
5.6 – 10.9	75	95	105	110	130	145	-
11.0 – 16.0	80	100	110	120	140	155	-

N.B. As a general rule, the size of the slate cannot be less than twice the lap in width and 3 times the lap in length.

Technical Specifications

Testing: Slate from SSQ is tested in accordance with the relevant sections of;

- BS 680: Part 2:1971;
- German Standard DIN 52201- 52206;
- French Standard P32/302(1989);
- Belgian Standard STS 34; and
- American Standard ASTM C406, C121, C217, C120.

Test certificates are available from SSQ on request.

Testing for the BS 680 is carried out by a NAMAS accredited testing house. Testing for the P32/302 is carried out by Laboratoire National d'Essais.

Fire: The Slate is completely non-combustable.

Optical: The colour of Del Carmen slate is totally natural and devoid of artificial pigments. It does not fade in sunlight.

Climate: Del Carmen slate is non-porous and its very low coefficient of expansion means that it is unaffected by changes in temperature.

Compatibility: Del Carmen slate is compatible with virtually all building products.

Chemical and Biological: The slate is almost totally inert with no adverse reaction in polluted environments (e.g. acid rain). Its high purity means it does not rust or crack. The slate is unaffected by insect attack.

Coverage

Number of Del Carmen slates required to cover 1m²

Slate size (mm)	Overlap (mm)				
	75	100	115	125	150
600x300	12.7	13.3	13.7	14	14.8
500x250	18.8	20.0	20.8	21.2	22.9
450x250	21.3	22.9	23.9	24.3	
400x250	24.6	26.6	28.1	28.8	
400x200	30.8	33.3	35.1		
350x200	36.4	40.0			
300x200	44.4	50.0			

Size & Weight: Del Carmen Slate

England, Wales and Northern Ireland

Thickness (mm)	Size (cm)	Weight per 1000 (kg)
5 – 6	60 x 30	2995
5 – 6	50 x 25	1675
5 – 6	45 x 30	1740
5 – 6	45 x 25	1635
5 – 6	40 x 25	1235
5 – 6	40 x 20	1255
5 – 6	35 x 25	1010
5 – 6	30 x 20	675

Technical Specification

	SSQ Del Carmen	BS 680	French Norm P32/302
Water Absorption	0.30%	≤ 0.30%	≤ 0.40%
Density (g/cm ³)	2.81	No requirement	≥ 2.75
Calcium Carbonate	0.3%	No requirement	≤ 3%
Thickness (mm)	Graded 5 to 6mm or 7 to 9mm	Graded	>2.6
Resistance to Flexion	Dry	No requirement	≥ 70 mpa
	Wet	No requirement	≥ 40 mpa
Frost Test/Loss of Mass	0.2%	No requirement	≤ 0.3%
Pyrites	Leaching	No requirement	Not permitted
	Non Leaching	No requirement	Permitted if not through
Acid Test	Pass	Required	Required
Wet and Dry Test	Pass	Required	Required
Grain	Longitudinal	Longitudinal	No requirement

Del Carmen slates tested by Laboratoire National d'Essais – Paris for NF P32/302 and TAPRA Technology Ltd – Shrewsbury for BS 680