Product Datasheet

Solar Slates

Solex solar slates are supplied in various sizes which are compatible with conventionally sized natural and manufactured slates.

The solar slates themselves are made of toughened glass, and are installed with metal hooks onto conventional timber battening.

They may be installed to the extremities of the roof, or as a patch surrounded by similarly sized conventional slates.

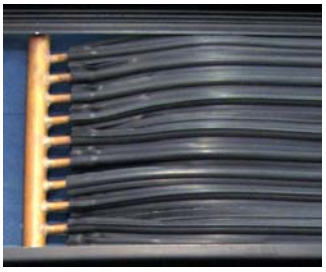
Alternatively they may be installed as a part of a roof face next to non-compatible slates or tiles, e.g. next to concrete tiles. In this case they are ideally installed as a strip at the top of the roof, lapping over the top edge of the non-compatible material.

The visual effect of the slates is a uniform medium to light grey, a combination of the reflection from the surface and the black colour of the absorbers panels which lie beneath them. Planning authorities have welcomed these roofs as a more aesthetically pleasing alternative to solar panels

Installation

The slates are installed on a conventional roof construction, typically consisting of rafters with a breathable roofing felt, with or without sarking boards or insulation to suit the design. Vertical counterbattens and horizontal battens, are fitted over the felt.

The silicone rubber solar absorber strip, which is supplied on a roll, is fitted over the battens. At the end of a course the strip is simply looped under the batten and up to the next course. At the top and bottom of the roof the absorber is terminated with a manifold.



The glass solar slates are fitted to the battens with stainless steel hooks, which are fastened securely with stainless screws.

Where the solar slates are installed as a patch they are simply stepped into the normal slates. Where the whole roof is to be covered, various special sizes are available:

Eaves slates for the first course.
Verge slates for the verges (gables).
Ridge slates for the ridge, which may be capped with dry-fit or cemented ridge tiles.
Cut corner slates for hips.

For valleys, around details, and other places where odd shapes are required, matching **polycarbonate slates** are available which can be cut to suit.

Specifications

	Slate system	500 series	600 series
SLATES	Material	4mm float glass, toughened to BS 6206	
	Standard slate size	500mm x 500mm	300 x 600mm
	Headlap	75-100mm	75-100mm
	Laying gauge	200-212mm	250-262mm
	Coverage	9.76/m^2	13.1/m^2
	Loading	25kg/m^2 (34kg/m^2 with absorbers & insul)	
	Minimum pitch	25° (30° sev.exp.)	23.5° (30° sev.exp.)
	Maximum pitch	70°	70°
	Battens	25 x 50mm +/-2mm, durable timber	
	Fixings	Stainless steel slate hooks and screws	
ABSORBERS	Material	Silicone	
	Width	212mm	262mm
	Water channels	6	8
	Channel diameter	8mm id / 12mm od	
	Fluid volume	300ml/m	400ml/m
	Loading	6kg/m^2, with fluid	
	Maximum fluid pressure	1 bar	
	Average annual output	410 kwh/m^2	
INSULATION	Type	25mm mineral fibre batt, 105kg/m^3	
	R value	0.037 Km^2/W	
	Loading	2.5kg/m^2	