

Zenon Evolution

The Zenon Evolution range of low carbon rooflights, manufactured and CE marked to UK Annex BS EN 1013:2012 + A1:2014, uses state of the art reinforcement technology to deliver a truly innovative rooflight solution with excellent impact resistance and an improved service life.



Tests conducted on Zenon Evolution resulted in the rooflights withstanding impacts of more than twice the force required by the Industry Standard test for non-fragility, the ACR[M]001:2014 (Fifth edition). Unlike traditional GRP rooflights reinforced with short glass fibres or rovings, the glass reinforcement used in the Evolution product is formed from a continuous woven mat of glass filaments layed on the polyester, providing very high tensile strength and resistance to tearing. This goes way beyond the minimum requirements for non-fragility and can produce rooflight sheeting stronger than the surrounding roof area.

Further tests were then carried out using just the reinforcement component, not encapsulated in polyester resin with the same results. The reinforcement alone provides an effective safety net.

The immense strength of the Zenon Evolution reinforcement means that the finished product is manufactured using significantly less resin than required with traditional reinforcement techniques.



Continuous filament reinforcement

The additional benefit of this is a significant reduction in the embodied carbon in the finished product with no loss in performance.

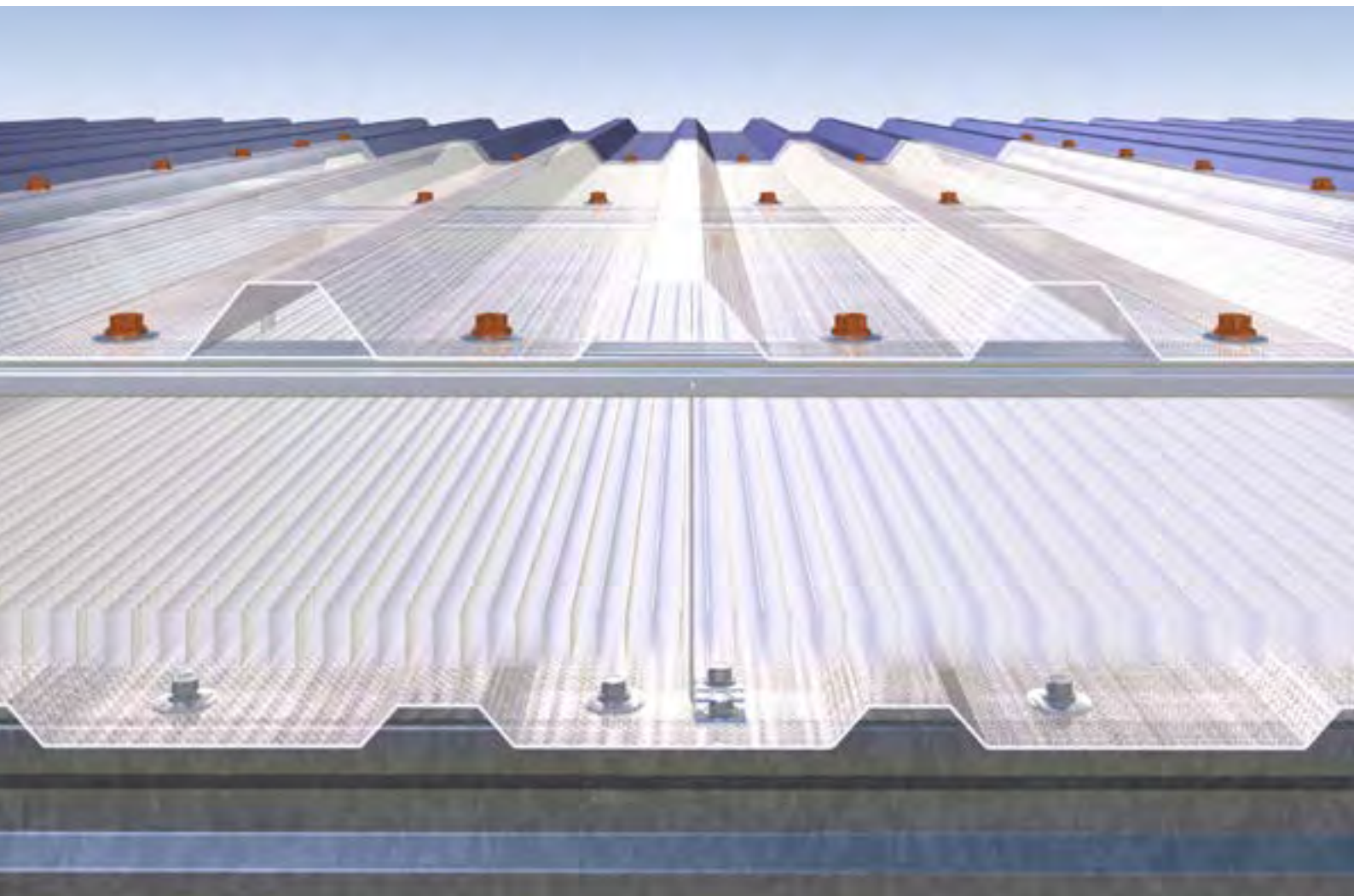
The ability to manufacture these high-strength rooflight sheets in this way provides a finished product with a greater strength to weight ratio, allowing thinner profiles with much better profile definition than significantly heavier conventionally reinforced products. This better profile definition from Zenon Evolution provides a far better profile match resulting in a better fit and more reliable seal with the adjacent metal sheets, aiding weather proofing and airtightness.

All Zenon Evolution rooflights carry Zenon Shield, a highly durable UV protective surface film for extended performance.

Embodied carbon in the finished Zenon Evolution rooflight range, is up to 40% lower than conventionally reinforced alternatives of equivalent strength. When installed with the unique Zenon Insulator light diffusing insulation layer in the finished installation, not only is the embodied carbon saving even greater, the light transmission levels are maintained, making a positive contribution to the Government target of carbon neutrality in non-domestic buildings by 2019.



EVOLUTION



Zenon Evolution - Maximum span table (outer sheet)

Depth of sheet profile (mm)	Purlin centres (m)	
	Evolution LC1	Evolution LC2
15 to 20	1.75	1.80
21 to 25	2.25	2.40
26 to 30	2.60	2.80
31 to 35	2.70	2.90
Over 36	2.80	3.00