

Space case pro

Chris Alderson reflects on the crucial importance of warm-edge technology to the development of the modern window, and Edgetech's ever-growing range of advanced spacers

Spacer bars are tiny and most people in the world don't know they exist. But, as everyone in the glazing industry knows, they are a vital part of how modern windows can deliver exceptional thermal and acoustic performance.

At Edgetech, we've been passionate about the power of warm-edge technology for over 30 years.

It existed long before us – it was invented in Victorian times, when wood or rope was used to separate the panes in the earliest double glazed windows – but we are proud to have played a major role in bringing it firmly into the mainstream.

When Edgetech was first founded, metal spacers were still the norm – but they came with significant drawbacks. Metal conducts heat, and that means that windows made with metal spacers very quickly let the warm out and the cold in.

Our modern iteration of warm-edge technology rectified that. By using highly-advanced plastics and foam rubbers rather than metal, warm-edge spacers – like Edgetech's Super Spacer were able to offer vastly better performance.

Flexible and rigid

Flexible spacers like Super Spacer are extremely versatile and their flexible design means they can be used to create unconventionally-shaped units, freeing up architects to be as bold and ambitious as they like.

Super Spacer TriSeal, for example, is in over four-thousand irregularly-shaped IGUs that make up Dubai's The Opus tower, one of the world's most striking and complex buildings, as well as the Qatar National Library.

Another key strength of flexible spacer is its memory. In parts of the world where strong winds or fluctuating temperatures are the norm, IGUs are put under a lot of pressure.

Super Spacer's 100% memory means that no matter how much an IGU expands or contracts under pressure, it will always return to its original position, but is flexible enough to move with the glass which reduces the stress on the glass edge.

This is one of the reasons it is commonly found in buildings in the Middle East where day and night temperatures can drastically vary.

Fast manufacturing

Even using our most basic, entry-level manual application tools, we've seen some people assemble a unit with it ready for secondary sealing in under 15 seconds.

With a fully-automated Super Spacer line the efficiency gains drastically increase. A nine-person line applying traditional rigid spacers can produce around 1,200 units every shift. A high-speed automated Super Spacer line, by contrast, can produce 23.5% more units and requires just three to four employees to operate.



Chris Alderson

In total, that equals savings of approximately £180,000 every year.

Widest Range

Our flexible spacer range also includes Duralite – a durable, single-seal, high-performance product that can be applied in a single step.

Rigid spacers, like Edgetech's TruPlas, made of high-performing glass-reinforced thermoplastic, offer improved thermal performance over metal spacer bars, and companies can switch to them from their metal counterparts easily, using their existing machinery.

More advances around the corner

Edgetech has a long-standing commitment to constant innovation, and we are currently hard at work developing several new spacer bar products.

We've just released the latest evolution of our heavy-duty T-Spacer product – T-Spacer SG, offering enhanced shape memory, and thermal conductivity of just 0.19W/m²K.

Super Spacer T-Spacer SG is a metal-free, silicone-based warm edge spacer made of structural foam, with an integrated desiccant that's been specifically designed for the toughest commercial applications; its extremely durable edge seal guarantees exceptional performance and stability.

Currently we are working on a number of other new designs, including additions to our Super Spacer platform and a new rigid spacer too.

2020 has been a challenging year for everyone – but at Edgetech, we are committed to continuing to push spacer technology forward, and helping glazing products offer the outstanding performance we'll need to hit net zero carbon by 2050. □

www.edgetechig.co.uk