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**XR**  
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EXTREME RIGID EDGE SPACER

THE LATEST  
GLASS SPACER  
TECHNOLOGY  
IN IGU LONGEVITY



## THE LATEST GLASS SPACER TECHNOLOGY IN IGU LONGEVITY

Redefining standards for double glazing spacers around the world, FMI Building Innovation's XR Edge is a multi-component system certified for all climate zones in New Zealand.

Designed to prevent and reduce internal condensation within an insulated glass unit, XR Edge is a revolutionary spacer for greater thermal efficiency and IGU longevity.

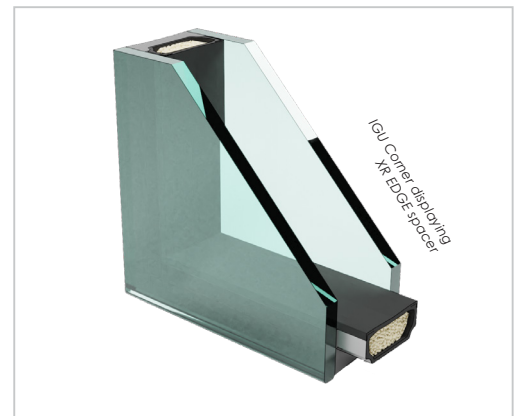
## WHAT IS A SPACER

A spacer is essentially a component that holds the two panes of glass apart within an IGU.

Its main role is preventing moisture passing into the IGU, reducing the possibility of internal condensation and fogging.

Typically, average spacers will often lead to IGU's failing prematurely due to climate and mechanical loads as well as material incompatibilities that cause the spacer sealants to leak.

With carefully and flawlessly manufactured insulating glass panes, our customers can expect the longest IGU life possible. That's where XR Edge comes in.



## WHY GO XR EDGE

Made up of five different components, our rigid spacer system has been designed to withstand New Zealand's climates.

### UNBREAKABLE BARRIER

Unlike other spacer manufacturers, **we use a stainless steel vapour barrier** and combine it with a structural core made of polypropylene that offers a superior thermal performance, and greatly reduces moisture permeability.

### TWICE AS MUCH DESICCANT

Although the chances of moisture passing through the stainless steel barrier are little to zero, a desiccant material is used to fill the hollow core of the stainless steel and polypropylene spacer to absorb any moisture within the air cavity.

Our spacer structure allows us to **use twice as much desiccant than standard spacers**. The more desiccant used, the more moisture can be absorbed, and the longer the unit lasts.

### LONGER LASTING IGU'S

**All four sides of our XR EDGE spacer are filled with desiccant**, which in turn allows for maximized IGU performance. Our multi-component spacer system ensures our customers obtain the longest IGU service life possible.



## THE FMI DIFFERENCE

Years of international research, rigorous testing, and thermal analysis have allowed us to formulate what we believe to be New Zealand's greatest in spacer design.

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We are proud to be **New Zealand's first glass manufacturer to have an IGU test lab on our own premises.**

Our facilities allow us to **simulate real time weather climates** to verify our product is fit for purpose right here in our own factories.

The outcome? **We find better solutions for our products faster**, and in turn increase our manufacturing capabilities across our supply chain.

At FMI Building Innovation we have our fingers on the pulse of industry breakthroughs which allows us to be in charge of our own destiny. We do not compromise on quality for cutting-edge technology and always push the boundaries for the latest in innovation.



# THE BREAKDOWN

**1. Desiccant:**

Removes moisture from the enclosed air during production and subsequently absorbs water vapor that penetrates until the end of its absorption capacity.

**2. Primary Sealant (PIB):**

Maintains gas tightness and minimizes moisture ingress into the unit. PIB is applied to the sidewalls of the spacer and creates a seal between the spacer and the glass.

**3. Secondary Sealant:**

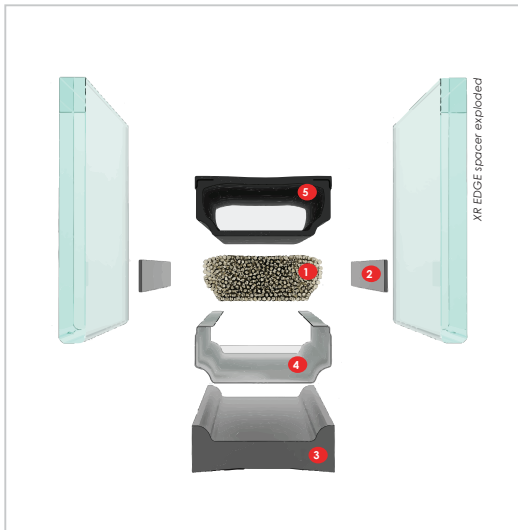
Provides mechanical stability to the entire IGU and protects the seal from environmental influences.

**4. Stainless Steel Vapour Barrier:**

Stops desiccant absorbing moisture from outside of the unit.

**5. Warm Edge Box Structure:**

A composite box structure that gives the entire spacer unit overall strength and a warm edge performance.



FEATURES	ALUMINIUM SPACER	FOAM SPACER	TPS SPACER	XR EDGE EXTREME WARM EDGE SPACER
RIGID SPACER	✓	✗	✗	✓
WARM EDGE	✗	✓	✓	✓
DESICCANT ON ALL FOUR SIDES	✗	✓	✓	✓
DESICCANT MOISTURE ABSORPTION CAPACITY	50%	35%	35%	100%
ZERO EXTERNAL VAPOUR PERMEATION	✓	✗	✗	✓
STAINLESS STEEL EXTERNAL VAPOUR BARRIER	✗	✗	✗	✓