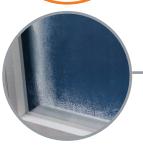
# Super Spacer® COMPARISON

## The Facts between Super Spacer® and XL Edge™



#### **NO-Metal Super Spacer®**

Patented all-foam design dramatically reduces condensation, delivering the clearest picture in Warm Edge technology.



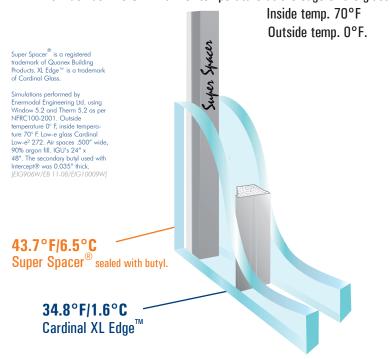
Windows made with Cardinal XL Edge™ Mid-performance spacer systems

Mid-performance spacer systems that still contain metal do little to improve condensation resistance.

- "Super Spacer is the world's leading 100% polymer foam, NO-Metal Spacing System."
- Super Spacer is 950 times less conductive than aluminum spacers, 85 times less than stainless steel.
- Windows with Super Spacer result in improved energy savings and improved window performance.
- Windows with Super Spacer have dramatically more condensation resistance than windows with XL Edge.

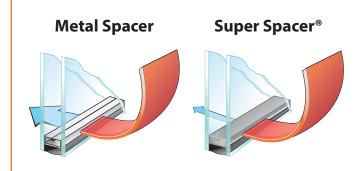
### **Super Spacer® Comparison Up to 70% better.**

As much as + 18.5°F warmer temperature at the edge of the glass.



### The Lowest Conductivity & IG U-factor Block heat from escaping through the glass edge

The all-foam formula of Super Spacer® is proven to be less conductive providing optimal thermal performance and the lowest U-Value in the industry. Reducing conductivity also reduces condensation.



| Spacer System                         | Condensation<br>Resistance | Edge of Glass<br>Temperature | Effective<br>Thermal<br>Conductivity | Total IGU<br>factor |
|---------------------------------------|----------------------------|------------------------------|--------------------------------------|---------------------|
| Super Spacer® Structural Foam / butyl | 44.9                       | 43.7°F / 6.5°C               | 0.171 W/m•K                          | 0.277               |
| Cardinal XL Edge™                     | 32.2                       | 34.8°F / 1.56°C              | 0.459 W/m•K                          | 0.293               |
|                                       |                            |                              |                                      |                     |

Simulations performed by Enermodal Engineering Ltd. using Window 5.2 and Therm 5.2 as per NFRC100-2001. Outside temperature 0°F, inside temperature 70°F. Low-E glass is Cardinal Low-e<sup>2</sup> 272. All air spaces are .500° wide, IGUs are 24° x 48°. [Test Reports EIG906w, EIG10005, EIG10009w]