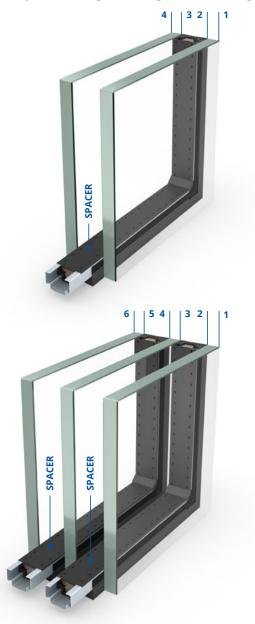




# SEALED UNITS

Glass assembly of two or three panes separated by an air space usually filled with argon gas when loweand hermetically sealed.

An insulated glass unit is an assembly of two or three panes, separated by an air space usually filled with argon gas when lowe and hermetically sealed. It improves energy performance of a window by reducing heating and cooling costs.



#### **SPACERS**

The spacer choice will influence the sealed unit performance. To reduce heat loss on the edges of the unit, the spacer width must be adequate. Standard recommended width is 13mm (1/2"), but it may vary according to the glazing unit size. Moreover, a warm edge spacer is a better option than aluminum. Laurier Architectural offers the following warm edger spacers: Technoform and SwissSpacer. <u>Contact</u> our technical team for technical data sheets.

## SEALANTS

All sealed units are double sealed. The first sealant a polyisobutylene (PIB) is used to prevent air penetration and to keep moisture out of the airspace. The secondary sealant can be made of polysulfide or silicone. Each sealant type has its strengths and weaknesses.

## SILICONE

Silicone is the only sealant that provides structural strength. It is temperature and solvent resistant.



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# POLYSULFIDE

Polysulfide sealant offers the best moisture resistance and gas retention.

To maintain the glazing unit performance, it is essential to ensure sealant compatibility with the glazing gaskets. For a compatibility list, please <u>contact</u> our technical team.

### AIR SPACE

The use of argon gas greatly limits heat loss from the sealed unit. Gas available on lowe units only.

#### SIZE AND WIDTH

The maximum sealed unit size varies according to its glass make-up. <u>Contact</u> our technical team for more information. The minimum air space is in accordance with the unit size. Compliance with this chart is mandatory to ensure warranty enforcement.

| SIZE                     | THICKNESS   |
|--------------------------|-------------|
| Units of less than 20 sf | 10mm 3/8"   |
| Units of more than 20 sf | 11mm 7/16"  |
| Units of more than 30 sf | 13mm 1/2"   |
| Units of more than 40 sf | 14mm 17/32" |
| Units of more than 45 sf | 16mm 5/8"   |
| Units of more than 65 sf | 19mm 3/4"   |

### **STANDARDS**

#### Glass

ASTM C1036 Standard de specification for flat glass

CAN/CGSB 12.3 M91 Standard Canadian - Clear float

#### **Tempered glass**

CGSB-12.1 Safety glazing

ASTM C1048 Heat treated flat glass

ANSI-Z97.1 National American Standard for Safety Glazing used in buildings

ASTM C1048 Heat treated flat glass

16CFR 1201 II, Safety Standard for Architectural Glazing Materials

DIN EN 14179-1, Heat Soaked Thermally Toughened Soda Lime Silicate Safety Glass.