

MULTIVER GLASS SEALANTS

DATA SHEET / Quebec

Version 2.1

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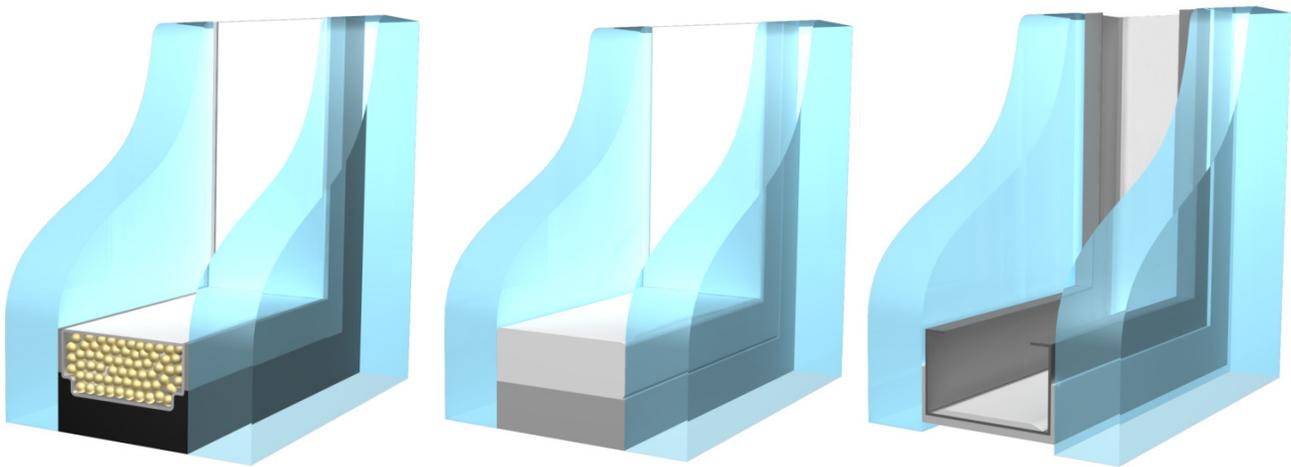
 **MULTIVER**
Cutting edge of the glass industry

Multiver

SEALANTS

The assembly of Multiver insulated glass units requires glass panes cut to the desired size. The glass panes are then spaced apart around the edge with a spacer, which creates a cavity that can then optionally be filled with a gas. We inject small desiccant beads into the spacer to absorb moisture. Another core component that must be considered is the **high quality sealants used by Multiver**.

It is important to note that **you must always specify which sealant you want** based on the intended use.



STANDARDS AND CERTIFICATES

Multiver meets the following requirements :

- CAN/CGSB 12.8 - Insulating Glass Units
- ASTM E2190 - Insulating Glass Unit Performance and Evaluation
- ASTM C1249 - Standard Guide for Secondary Seal [...] Glazing Applications

*D'autres normes et certificats non mentionnés peuvent s'appliquer.



BENEFITS

- ▶ By selecting high durability and performance sealants, **Multiver can guarantee its insulated units for several years.**
- ▶ **The mechanical structure and tightness of the enhanced unit** allow to produce very large insulated units without increasing the risk of unsealing.
 - ▶ Despite the increased durability of Multiver insulated units, **it remains essential to ensure the compatibility of sealants used with our products.**
 - ▶ With the variety of sealants we use, we can **adapt our products to any type of installation** of windows, conventional curtain walls as well as structural glazing curtain walls.
 - ▶ Sealants can **give a uniform and homogeneous look** to buildings with structural glazing by using grey or black* silicone, depending on the colour scheme.
 - ▶ **Sealants are a highly effective barrier** that prevents condensation from forming between the glass panes.
 - ▶ **They can be utilized in residential, institutional as well as commercial applications.**

* Black silicone is the default color.

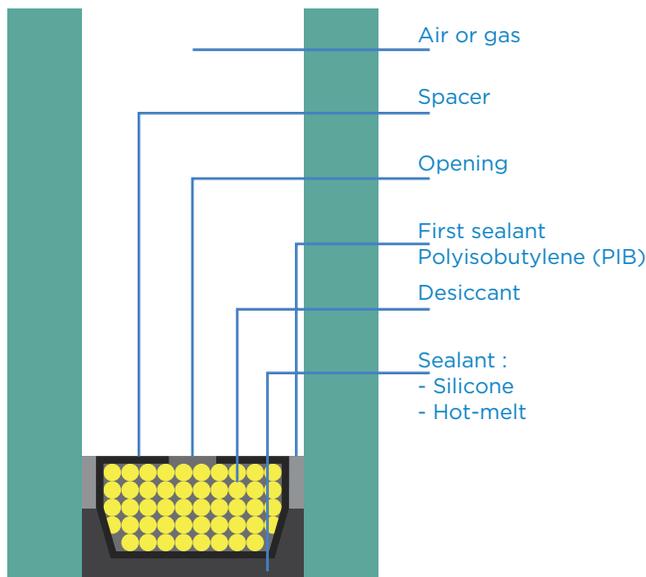


Functions and Applications

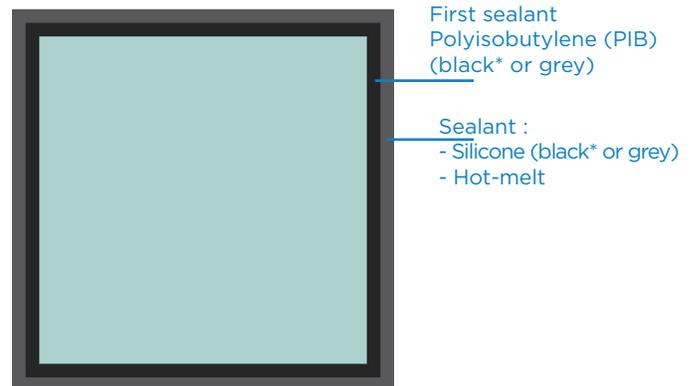
SEALANTS

In order to better understand the functions and applications of sealants, here are **diagrams of insulated units, as seen from the side and the front**, including relevant information.

INSULATED UNIT (SIDE VIEW)



INSULATED UNIT (FRONT VIEW)



If you order glass units sealed with grey silicone and polyisobutylene (PIB), you will notice a slight difference in colour between the two sealants.

At Multiver, sealants are applied by **sealing robots**. Most insulated units offered by Multiver include **two sealants**. The first sealant is always **polyisobutylene (PIB)**, which is essential to **prevent ingress of water vapour**. Actually, PIB is a product with one of the lowest, if not the lowest, water vapour transmission. This sealant is applied on both surfaces of the spacer separating the glass panes. It is imperative that the sealant be perfectly continuous to avoid any leakage.

* Black silicone is the default color.



Second sealant

TWO OPTIONS

As for the second sealant, it is mainly used for the **mechanical structure** of the insulated glass units.

Multiver offers two options :

COMMERCIAL SECTOR

1 - SILICONE

Available in black* and grey, two-component silicone is the perfect product **for windows and conventional curtain walls as well as structural glazing curtain wall systems**, because it is more durable under the various types of solar radiation, in particular, UV radiation. Also, silicone releases neutral fumes (neutral cure). However, the hardening time, after assembly, is relatively long. This product has proved to be very durable in the long term and is increasingly in demand.

It is essential to **always ensure the compatibility of sealants** used by installers, considering that any incompatibility could result in adverse chemical reactions that would unseal the insulated units. Any incompatibility would automatically void the Multiver warranty.

Setting blocks must be made of silicone

because neoprene blocks produce adverse chemical reactions with the silicone used.

RESIDENTIAL SECTOR

2 - HOT-MELT

Available in black, hot-melt sealing is **almost exclusively used in the residential sector**. This sealant is effective against water vapour and stands out because it hardens very quickly (in approximately 30 minutes), which allows to quickly produce insulated glass units and deliver them to the customers without having to wait several hours for the sealant to be hard.

With the residential sector heavily focused on the just-in-time method, Multiver was very innovative in being one of the first in North America to use this sealant for residential projects. Recently, we have even launched a **new compatible, high quality product for the commercial sector**.

* Black silicone is the default color.





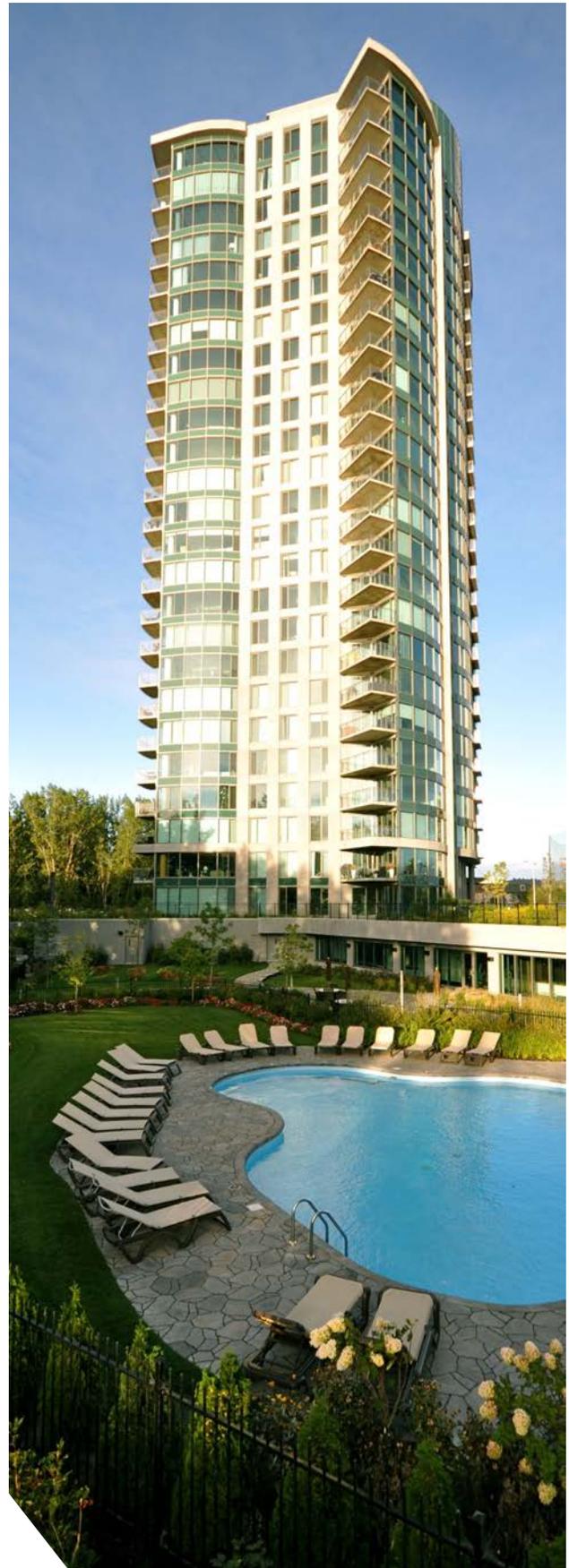
MAINTENANCE

The insulated section is usually not exposed. Therefore, the sealant around the insulated units does not require any specific maintenance.

Certain products designed for wooden windows are very corrosive and can contaminate the sealant of insulated units. Ensure that products used to preserve wood do not come into contact with the edge of the units.

Cleaners containing solvents must never be used.

Exposed glass surfaces must be protected during the construction or renovation of the building to minimize the risk of scratches and glass breakage.



Le Vistal Condominium



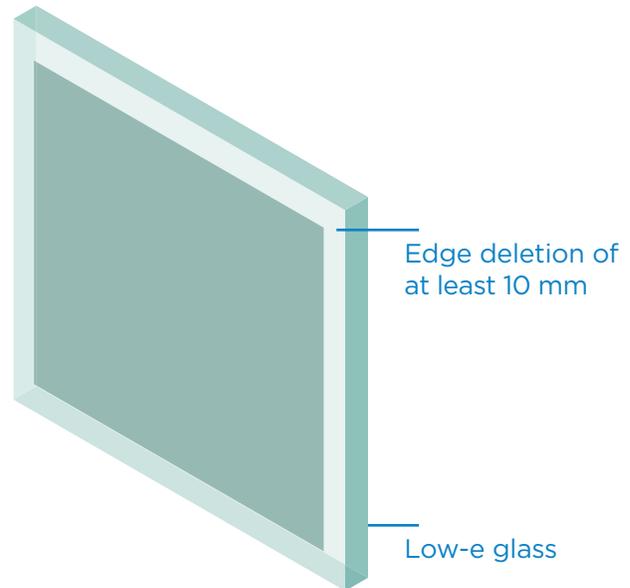
USEFUL INFORMATIONS

Properly installed windows and curtain walls with compatible products as well as extrusions with adequate weep holes allow for rainwater drainage and good air flow and therefore prevent the sealant from being covered with water, which could shorten the lifespan of insulated glass units.

It is important to remind you that you should ensure the **compatibility of sealants and setting blocks** that are close to or in contact with Multiver products. Failure to comply with this instruction could result in the voiding of the Multiver warranty. **Consult our documents on sealant compatibility, available on our Web site**, to avoid potential problems with our products.



Bell Campus



EDGE DELETION

Regarding the manufacture of insulated units with soft coat low emissivity (low-e) glass, **Multiver strongly recommends a minimum edge deletion of 10 mm**. Edge deletion involves removing from the edge metallic oxide layers that could come into contact with the sealant. Edge deletion has a number of benefits : it allows the sealant to better adhere directly to the glass, rather than the metallic oxides ; it increases the lifespan of insulated units ; and it reduces the risk of contamination and corrosion. **Multiver encourages specialists in architecture to mention edge deletion in their architectural specifications.**



This document gives a general description of the product. For further information, please contact an authorized supplier of Multiver products. The use of any of the products mentioned herein is the sole responsibility of the users. Multiver assumes no responsibility for the use of its products.

