

# Open the door to broader processing options

A full portfolio of insulated garage door solutions from a supplier you can trust

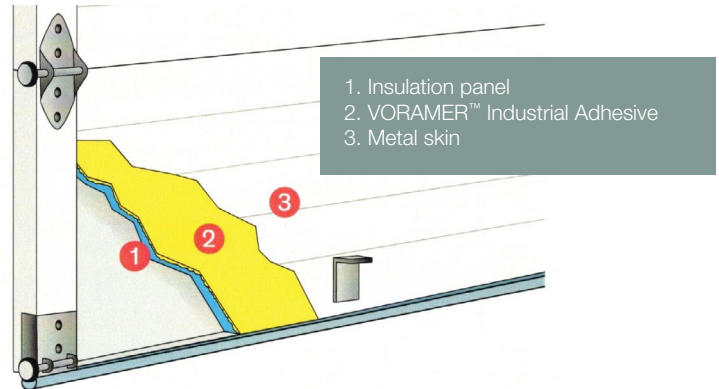
Whether you use a lamination or a pour-in-place process to manufacture your rigid panel garage doors, we have a quality insulation solution that will help you deliver years of high performance to your customers. Dow offers a broad portfolio of products that enable customizable, thermally efficient garage doors, including both extruded polystyrene and polyurethane insulation.

For lamination processes, we offer high-performance VORAMER™ Industrial Adhesives, which are formulated to bond to a variety of substrates. For pour-in-place processes, we offer VORACOR™ Polyurethane Systems, customized to meet your specific needs, without using adhesive.

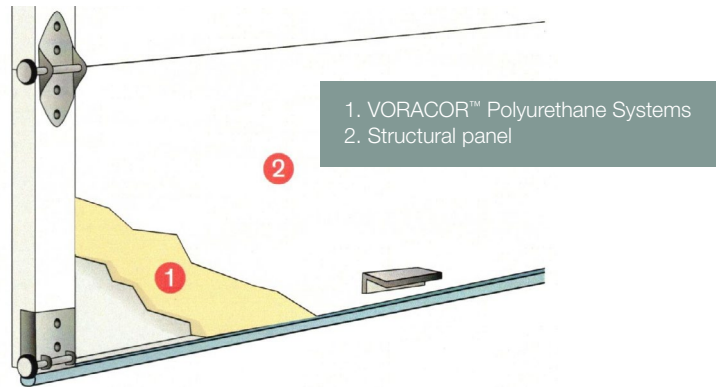
## Different approaches, same great results

We bring a long history of expertise and the technical support to determine which solution works best for your processing – and we have in-house capabilities that can be tailored to meet your needs. Review the benefits to see how we can help enhance your next garage door project's look and performance.

Lamination process



Pour-in-place process



Lamination process	Pour-in-place process
<ul style="list-style-type: none"> <li>• Our non-solvent VORAMER™ Industrial Adhesive technology can help improve safety, environmental protection, and convenience while offering high structural and thermal performance</li> <li>• Shape and size customization</li> <li>• VORAMER™ Industrial Adhesives are available as a 2-component filled adhesive for XPS panels or a 1-component unfilled adhesive for panels composed of PVC, GRP, wood, steel, or aluminum as outer shells</li> <li>• Dow has been a leading insulation choice for 75 years</li> <li>• We offer a variety of VORAMER™ Industrial Adhesive formulations to achieve your needs for cure rate, assembly time, and press turnover</li> </ul>	<ul style="list-style-type: none"> <li>• The VORACOR™ Polyurethane System offers great adhesion through pour-in-place or spray processes</li> <li>• Dow has a state-of-the-art continuous line fully devoted to testing and prototyping activities</li> <li>• Our portfolio of blowing agent options includes those with low global warming potential</li> <li>• We can optimize the density and cycle time to meet your specifications</li> <li>• Dow's unique DELTA THERM™ Eliminator Dispensing Gun goes from 0 to foaming in 2 hours, keeping your investment low</li> <li>• We offer systems optimized for both continuous and discontinuous processes</li> </ul>

### Technical Properties

Property and test method	Lamination	Pour-in-place
Blowing agent	–	245fa, 134a, Pentane, HFO
Mix pressure	N/A	Low-high
In place density (ASTM D1621)	1.5	2.1-2.3
Compressive strength (ASTM 1621)	20-40	15-20
k-factor @ 75°F (Btu*in/ft²*hr*°F, ASTM C518)	0.2	0.148-0.152
Moisture permeability (% by volume, ASTM C272)	0.3	N/A

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