CHILDGARD® security glazing is laminated safety glass constructed using an arrangement of proprietary transparent materials. CHILDGARD security glazing is designed to withstand extensive physical attack in a forced entry scenario, ultimately resisting entry until law enforcement or additional help arrives. CHILDGARD security glazing has been fully tested to ASTM F1233-08 security glazing standards, one of the most recognized protocols in the detention industry, and complies with standard safety glazing codes for all interior and exterior applications.

With a nominal thickness starting at 5/16”, CHILDGARD security glazing is designed for new and retrofit windows in school and childcare facilities. In addition, CHILDGARD security glazing can be manufactured as an insulating glass unit incorporating a wide variety of tints and high-performance Low-E coatings.

Tested using recognized detention standards
• Installed following industry guidelines - no need for licensed installers
• Retrofit or New Construction

Learn more about how you can protect your future with CHILDGARD® Security Glazing at security-glazing.com.

<table>
<thead>
<tr>
<th>TEST SEQUENCE</th>
<th>TEST IMPLEMENTS</th>
<th>IMPACTS</th>
<th>SEQUENCE TIME (SECONDS)</th>
<th>CLASS ACHIEVED</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ball Peen Hammer</td>
<td>10</td>
<td>22</td>
<td>1.0</td>
<td>One technician delivered 10 impacts with a Ball Peen Hammer, no penetration or openings were created.</td>
</tr>
<tr>
<td>2</td>
<td>Ball Peen Hammer</td>
<td>10</td>
<td>24</td>
<td>1.1</td>
<td>A second technician delivered 10 additional impacts with a Ball Peen Hammer, no penetration or openings were created.</td>
</tr>
<tr>
<td>3</td>
<td>1 ½” Diameter Pipe / 12-lb Sledge</td>
<td>25</td>
<td>174</td>
<td>1.2</td>
<td>One technician held the pipe while one technician swung a 12-lb sledge hammer. The pipe was held at different angles to evaluate the resistance of the sample to both puncture and gouging.</td>
</tr>
<tr>
<td>4</td>
<td>Extinguisher, CO2</td>
<td>NA</td>
<td>60</td>
<td>1.3</td>
<td>Extinguisher fully discharged for 60-seconds. This step is designed to freeze the materials, mimicking cold weather and making the components more brittle for subsequent attack. Other products in the market avoid this step.</td>
</tr>
<tr>
<td>5</td>
<td>Sledge Hammer</td>
<td>19</td>
<td>44</td>
<td>1.4</td>
<td>Immediately after discharging the extinguisher in Test Sequence 4, 19 impacts were delivered to the sample utilizing a Sledge Hammer. Testing was terminated after the 19th impact as the opening created in the sample allowed Body Passage per IAW ASTM F1233-08 Section 10.2.4.2.</td>
</tr>
</tbody>
</table>

Please note that only the glazing has been tested to the attack tools, techniques, methods, testing procedures and durations detailed in ASTM F 1233-08, Class 1.3. GSG makes no warranty, and claims no responsibility for any loss, damage or claim for any tools, devices, techniques, or methods used, or any attack duration not otherwise detailed in ASTM F 1233-08, Class 1.3.

**KEY SPECIFICATIONS**

**COMPLIES WITH THE FOLLOWING STANDARDS**

- Forced Entry: ASTM F 1233 Class 1.3
- Safety: ANSI Z97.1, CPSC 16 CFR 1201 (Cat. I and II)
- Manufacturing: ASTM C 1036, ASTM C 1048, ASTM C 1349, ASTM C 1172

**CHILDGARD SECURITY GLAZING FOR RETROFIT**

- **WEIGHT THICKNESS**
  - 3.68 lbs. / sq. ft
  - 4.16 lbs. / sq. ft
- **MAX SIZE**
  - Up to 72”x130”
- **OPTIONS**
  - Insulated, Low-E, Tints, Reflective (The use of some options may alter product thickness)
Your Portfolio for School Security glazing: Global Security Glazing offers a wide range of security glazing products to protect schools, including high performance forced entry and bullet resistant constructions that could be installed in lobbies, access points, shelters, transactional windows and other areas where heightened security is desired. Please contact your Global Security Glazing representative for details.

Installation Instructions

The following instructions represent general and accepted industry practices for product installation. It is not the intention of Global Security Glazing to exclude or prohibit other installation techniques that are appropriate to specific building designs.

Global Security Glazing's product must be installed in accordance with proper glazing techniques as set forth in the Glass Association of North America (GANA) Glazing Manual and Sealant Manual 2010 (or most current edition). Clearance recommendations shown must be followed to protect all products from excessive pressure or glass-to-metal contact, which can cause breakage. Install setting blocks not less than four inches long and slightly wider than the glazing at quarter points. Incorporate a weep system into exterior glazing systems. The installation of glass should be considered a finishing procedure. During glazing, product surfaces should be protected from paint, plaster, chemical splash, or welding spatters. Polycarbonate surfaces exposed to direct sunlight must have masking removed and recovered with plastic film and duct taped to the frames. Failure to do so may cause staining or shadows later.

Global Security Glazing recommends that CHILDGARD™ security glazing be installed into frames with a fixed interior stop. If installed into frames with removable interior stops it is recommended that stops be secured with mechanical fasteners 5-6" OC so that stops cannot be dislodged during impact. Global Security Glazing recommends no less than ½" bite on all edges. In addition, CHILDGARD™ security glazing should be wet glazed on the protected side of the glazing with a high quality structural silicone to promote glazing retention during attack. Product testing has incorporated Dow 995 structural sealant applied to the interior glazing leg. Care must be taken as to not interfere with weep holes during wet glazing operations to ensure the continued performance of the glazing.

Cleaning Instructions for Glass and Polycarbonate

Glass and polycarbonate must be handled and cleaned properly during the installation process. Glass and polycarbonate products can be permanently damaged if improperly handled or cleaned. Global Security Glazing recommends strict compliance with the following procedures.

Uniformly apply a mild solution of soap and water or a non-abrasive commercial window-washing solution to the surface using applicator methods. Remove all liquid from the surface with a soft flannel or cotton cloth immediately following the application of the cleaning solutions. Care should be taken to ensure that no metal, sand, or foreign particles become trapped between the cloth and the substrate. These particles, if allowed to contact the glass or polycarbonate surface, will mar and damage the glazing. All cleaning solutions should be dried from the window gaskets and sealants to avoid the potential for deterioration as a result of the cleaning process. Do not apply cleaners in direct sunlight or at elevated temperatures. Do not use razor blades or squeegees to clean hard-to-remove substances. Do not use abrasive or highly alkaline cleaners. Benzene, gasoline, acetone, MEK, and carbon tetrachloride should never be used on polycarbonate surfaces. Assume materials are not compatible unless they have been approved by Global Security Glazing. Cleaning agents found to be compatible with glass and polycarbonates are as follows:

Compatible Cleaners and Detergents

- Formula 409
- Windex with Ammonia
- VM & P Naphtha
- Grade Isopropyl Alcohol