

Q: What is your warranty on glass-clad polycarbonate products?

A: We offer a standard five (5) year warranty from the date of manufacture for glass-clad polycarbonate products.

Q: What are the key features of all laminated polycarbonate LEXGARD® products?

A: Our LEXGARD® products are constructed of laminated plastics (often polycarbonate and high-performance interlayers). These products offer reduced weight, durable abrasion resistant coatings, versatile purchasing, easy fabrication, and an impact resistant nature that will not fracture like glass. These key material properties make LEXGARD® the premier transparency option. While our LEXGARD® products are primarily used in interior applications, we have customers around the world using these materials in exterior vehicle glazing for safety and driver protection. As a plastic laminate, LEXGARD® products do not have the built-in abrasion and chemical resistance of a glass or ceramic product.

Please note some LEXGARD® products may also include acrylic for increased ballistic and small object impact performance.

Q: Is it possible for glass to break in a security transparency, such as the glass in a glass clad polycarbonate laminate?

A: While our security glazing is tested to globally recognized forced entry and ballistic standards, individual glass layers within laminates can break. Even with heavy protection bullet resistant glass, glass breakage is possible and is nearly guaranteed during a ballistic event. If breakage concerns are paramount, such as in a high impact environment, we would suggest a LEXGARD® product as they will offer robust impact performance without breakage.

Q: Is it possible to apply film on my security glass?

A: The application of surface applied film may contribute to increased internal laminate, airspace and sealant temperatures, damage to the glass surfaces and edges due to film installation, incompatibility issues with film or application materials. Breakage, discoloration, or other aesthetic issues may also be attributable to film installation. For these reasons, the use of surface applied film will void Isoclima Specialty Glass, LLC/Global Security Glazing's warranty and any warranties on glass coatings from our valued suppliers.

Q: Do you offer insulating units with security glass?

A: Yes, we provide insulating options for nearly all our security glass products. Options include tints, spandrel, pattern frit, bird friendly and high-performance low emissivity coatings. We offer standard aluminum spacers, and warm edge options such as stainless steel or metal/polymer hybrid. Our Insulating glass units are tested and certified for durability by IGCC.

Q: What is the thinnest bullet-resistant product available?

A: The thinnest bullet resistant all plastic is laminate is our UL 752 Level 1 LEXGARD® MP750, nominally 3/4". The thinnest glass/exposed polycarbonate laminate is our UL 752 Level 1 SP175, nominally 3/4". The thinnest all glass laminate is our UL 752 Level 1 BR113, nominally 1-1/4".

Q: What is the thinnest insulated bullet-resistant product available?

A: Currently, our thinnest UL 752 listed insulated product measures 1-9/16" and comprises a 1/4" Outboard + 1/2" Airspace + 7/8" UL 752 Level 1 Secur-Tem + Poly SP188.

Q: What is the difference between bulletproof vs bullet-resistant products?

A: The term "bulletproof" is a misnomer. The variety of weapons, projectiles and velocities allow for immeasurable impacts on ballistic materials. Our bullet resistant products are designed and certified to resist specific threats as defined in ballistic test standards. Many of our products are tested to NIJ 0108.01, EN 1063 and UL 752. Our vast array of UL listed products ensures the consumer that our transparencies are subjected to a vigorous follow up testing protocol to ensure ongoing life safety.

Q: What types of bullet-resistant products are available?

A: We provide a wide array of bullet resistant products, tested to UL 752, NIJ 0108.01 and EN1063. We offer UL 752 products in all glass, all plastic (LEXGARD®) and glass/exposed polycarbonate laminates. Please contact us for all your bullet resistant needs.

Q: What are the key features of All Glass bullet resistant products?

A: Our All Glass bullet resistant products are multiply glass laminates that offer superior chemical and abrasion resistance when compared to a glass/exposed plastic laminate. While these robust constructions may weigh more, they offer increased longevity due to no exposed plastic surfaces. These products can be combined with low emissivity coatings, tints, privacy coatings, frit, bird friendly, warm edge spacer options, etc.

Q: What are the characteristics of Glass and Polycarbonate Composite products?

A: Glass and Polycarbonate Composite products feature a design consisting of a glass exterior attack side and an exposed polycarbonate interior safe side, ensuring optimal security. They offer versatility for both interior and exterior applications and can be insulated for added protection and energy efficiency.

Q: What is an Air Gap Unit in security glazing?

A: An air gap unit is comprised of monolithic or laminated plastic (often polycarbonate) on one or both sides, with an airspace cavity separating the layers. As plastics are hygroscopic, these units are not hermetically sealed, potentially allowing for moisture absorption and subsequent passage into the airspace. The lack of a hermetic seal may cause fogging/condensation. As a result, they are incompatible with high performance low-emissivity coatings, if the coating is not embedded inside a glass laminate.

Q: What is UL 752 Bullet Resistance and how does it impact product certification?

A: The Underwriters Laboratories (UL) UL 752 Bullet-Resisting Equipment Standard is a standard that covers bullet resistance from handgun to long gun protection levels. For a product to attain UL certification, it must demonstrate resistance to spalling and bullet penetration, ensuring reliable protection against the prescribed threat. This certification signifies initial compliance with the bullet resistant standard and annual follow up testing, instilling confidence in the product's performance and reliability. Please note Isoclima Specialty Glass, LLC/Global Security Glazing's products are tested to the more demanding UL 752 Outdoor use requirements, which includes severe conditioning prior to testing.

Q: What is the significance of "no spall" or "low spall" in bullet-resistant glass?

A: Spall is defined as fragments that can break and become dislodged from the transparency. These fragments are often splinters of glass, plastic or bullet materials thrown towards the intended safe side during a ballistic impact. A "no spall" product will exhibit no spall or no sufficient spall that will damage the indicator/witness panel during a ballistic event. A "low spall" product will protect against bullet penetration but will exhibit spalling/splintering during the ballistic event.

The UL 752 Standard is complete protection that does not allow for any fragments to embed or damage the cardboard witness panel. The UL 752 standard does not have a "low spall" acceptance criterion.

Q: Is CHILDGARD® Security Glazing considered bullet resistant?

A: Our CHILDGARD® 2118 product undergoes rigorous testing, withstanding 3 rounds of a .38 special in an 8" Circle, 158-grain lead at 20 feet. It exhibits spall with no bullet penetration, as per HP White -TP-0500.03 standards. Even after a ballistic attack, all our CHILDGARD® products remain substantially intact to provide a barrier for entry unlike conventional monolithic glass or insulating glass units.

Q: Can CHILDGARD® Security Glazing be retrofitted into older frames?

A: Absolutely! While there may be some size limitations, our CHILDGARD® product is designed to be installed in existing frames. Retrofitting CHILDGARD® into older installations not only enhances

glazing performance significantly but also provides superior security compared to traditional glazing methods.

Q: What types of high-performance low emissivity coatings can be used for insulating CHILDGARD® Security Glazing?

A: Our most popular coating offerings include Vitro Solarban® and Guardian SunGuard® coatings, ensuring optimal insulation performance for CHILDGARD® Security Glazing installations.

Q: What is the recommended installation method for CHILDGARD® Security Glazing?

A: We suggest a minimum 1/2" bite on all edges during installation. Additionally, CHILDGARD® should be wet glazed using high-quality structural silicone to enhance glazing retention in the event of an attack. We recommend applying Dow 995 structural sealant to the interior glazing leg for added security and durability. *Although Isoclima Specialty Glass, LLC/Global Security Glazing recommends ½" framing bite, a lesser glass/frame interference has been tested and utilized with success.*

Q: Is butt-glazing suitable for CHILDGARD®?

A: While feasible, it's crucial to note that butt-glazing may compromise security transparency. For optimal retention, we recommend a four-sided captured installation, featuring fixed interior stops. This configuration significantly reduces the risk of glass dislodgement. Conversely, a two-side captured installation, such as butt-glazing, poses vulnerability to body or object passage.

Q: What are security GCP products?

A: "Security GCP products" typically refer to security glazing or security glass-clad polycarbonate products. These are specialized materials designed to enhance security and protection in various applications, such as building facades, windows, doors, and other areas requiring resistance to forced entry, ballistic threats, or other security risks. Security GCP products often consist of multiple layers of glass and polycarbonate, laminated together with interlayers to provide high impact strength with the durability of abrasion and chemical resistance exposed glass surfaces. They are commonly used in high-security environments such as detention facilities and critical infrastructure sites.

Q: What are the size limitations for security GCP products?

A: Our maximum size available for any glass/polycarbonate laminate is 60x96". Please contact us for additional options.

Q: What are the available sheet sizes for LEXGARD® sheets?

A: Clear LEXGARD® sheets are offered in sizes 48x96”, 60x96”, and 72x96”, as well as half sheets measuring 48x48”, 60x48”, and 72x48”. For tinted LEXGARD® sheets, the maximum size for most types is 60x96”. Please contact us for additional assistance regarding tinted LEXGARD® options.

Q: Is it possible to adjust the thickness of a tested security glazing type to align with a framing system?

A: We cannot modify the thickness of the specified security product. Tested glazing types undergo specific construction development to meet designated performance standards. However, we may have alternative options available to meet your project’s requirements. Please contact us directly for further assistance.

Q: Have you always been known as Isoclima?

A: No, Isoclima, a renowned global leader in high performance glass products, acquired Dlubak Specialty Glass and Global Security Glazing in 2021. This strategic move reflects Isoclima's commitment to expanding its presence in North America and enhancing its portfolio of security and architectural glass offerings.

Snapshot of Dlubak Specialty Glass:

Dlubak Specialty Glass, headquartered in Blairsville, PA, traced its roots back to 1947 when Charles F. Dlubak founded Dlubak Studios, a stained-glass company. Under the visionary leadership of Frank Dlubak, the company evolved into a pioneering force in the glass industry, specializing in custom fabricated glass solutions. Dlubak Corporation's expertise spanned flat glass, metal bending, research, and development, with a legacy of innovation and customer-centric approach.

Snapshot of Global Security Glazing:

Global Security Glazing, based in Selma, Alabama, is a leading manufacturer of security, custom architectural, and transportation glass products. Specializing in impact, bullet, blast, and fire-resistant protection, the company's comprehensive product portfolio caters to diverse applications, including prisons, embassies, and armored vehicles. Renowned for its market-leading solutions, Global Security Glazing is sought after worldwide for its quality-sensitive glazing solutions.