SunGuard IS 20 technical information delves into the advanced capabilities of IS 20, an interior-surface coating that offers superior thermal performance with striking clarity.

Offering strength, durability, and cleanability comparable to standard float glass, IS 20 provides beautifully clear, extraordinarily efficient glass for windows and glazings in office buildings, high rises and other commercial and institutional settings.

Combined with a Guardian low-emissivity coating on the second surface, the addition of IS 20 on the fourth surface provides an enhanced thermal barrier, improving the energy performance of a dual-glazed or triple-glazed low-e window.
IS 20 At-a-glance

IS 20 gives you enhanced control over energy and aesthetics.

**Features**
- Low u-value
- High visible light transmission
- Low haze
- Neutral color
- Smooth and durable surface
- As mechanically and chemically durable as regular glass

**Benefits**
- Meet or exceed energy codes and earn LEED credits with the help of this exceptional low-e interior coating
- Save energy and money on lower heating and air-conditioning costs
- Beautiful to look at and through
- Coating withstands cleanings, daily wear-and-tear, abrasion and exposure to the environment comparable to standard float glass
- IS 20 allows for versatile treatments in fabrication to meet building requirements and design specifications

**Options**
- Clear: 3 mm to 6 mm
- UltraClear: 3 mm to 6 mm

**Adapts to Aesthetic and Safety Needs**
- Heat-treated product can be bent, laminated and heat soaked

**Offering**
- SunGuard IS 20 can be paired with other SunGuard high-performance low-e coatings to improve thermal performance

**Dimensions**
- Stock sheet sizes:
  - Standard—96” x 130”
  - Maximum—98” x 144”
  - Other sizes may be available upon request

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**LOWER U-VALUE. LOTS OF LIGHT. GREATER ENERGY SAVINGS.**

<table>
<thead>
<tr>
<th>U-value</th>
<th>Light transmission</th>
</tr>
</thead>
<tbody>
<tr>
<td>.25 SN 68 only</td>
<td>68% SN 68 only</td>
</tr>
<tr>
<td>.20 SN 68 with IS 20</td>
<td>66% SN 68 with IS 20</td>
</tr>
</tbody>
</table>

Lowers U-value up to 25%

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**Test Specifications**
- Glass configuration: 6.0 mm on Clear / ½” 90% Argon, 10% Air / 6.0 mm on Clear
- Coatings: SN 68 on the #2 surface; SunGuard IS 20 on the #4 surface
- U-value: calculated for dual-glazed, low-e window with Argon fill; winter/night measurement
Performance Testing

IS 20 is smooth to the touch and has less haze than pyrolytic coatings.

Temperature and Humidity
IS 20 is more resistant to corrosion than standard float glass.

When tested 14 days in a high-temperature, high-humidity chamber to accelerate aging:
• uncoated float glass shows visible staining which cannot be removed, even when using polishing agents
• IS 20 shows no damage

Mechanical Strength
IS 20 has the mechanical and chemical strength of uncoated float glass.

SunGuard IS 20 performs as well as uncoated float glass in tests that replicate real-world conditions such as its ability to:
• withstand machine washing during fabrication (test—1,000 cycles with a wet DQB brush)
• sustain daily wear and tear, including incidental contact with people, clothing, window treatments, etc. (test—1,000 cycles with a dry DQB brush)

In both wet and dry brush tests, IS 20 shows no damage.

Cleanability
The smooth surface of IS 20 cleans like standard, uncoated float glass and doesn’t attract dirt and dust, whereas environmental contaminants tend to build up in the rough surface of pyrolytic coatings and are difficult to remove—leading to increased haze over time.

IS 20 can be cleaned using common products such as Glass Plus®, Windex®, and Pledge® without leaving residue or causing damage.

Chemical Durability
SunGuard IS 20 is chemically stable and can withstand real-world exposure to the same cleansers, fabrication chemicals and building/remodeling conditions as standard float glass.

Handling and Fabrication
IS 20 must be heat-treated. For complete handling and fabrication guidelines, please refer to the Guardian Residential Coated Products User’s Guide.

<table>
<thead>
<tr>
<th>Test</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to harsh chemicals</td>
<td>No damage</td>
</tr>
<tr>
<td>Ammonium hydroxide; hydrochloric acid; nitric acid; sulfuric acid; sodium hydroxide; concrete splash</td>
<td></td>
</tr>
<tr>
<td>Paint and stain resistance</td>
<td>No paint residue, no damage</td>
</tr>
<tr>
<td>Oil; acrylic; latex; urethane; wood stain</td>
<td></td>
</tr>
<tr>
<td>Removability of tape</td>
<td>No tape residue, no damage</td>
</tr>
<tr>
<td>Painter’s tape; duct tape; VHB; polyisobutylene; aged duct tape</td>
<td></td>
</tr>
<tr>
<td>Sealant compatibility (removal)</td>
<td>No sealant residue, no damage</td>
</tr>
<tr>
<td>Synthetic rubber; silicone; polyurethane; latex (Testing included new and UV-aged sealants.)</td>
<td></td>
</tr>
<tr>
<td>Sealant compatibility (adhesion)</td>
<td>No adhesive failure</td>
</tr>
<tr>
<td>Synthetic rubber; silicone; polyurethane; latex</td>
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</tr>
</tbody>
</table>
SunGuard® Advanced Architectural Glass is where art and technology meet. Where innovations help architects create striking statements of light and color—as they earn LEED points and control energy costs. High-performance and aesthetic glass options specifically designed for commercial spaces are supported by exceptional service through the Guardian Select Fabricator network and Guardian Glazier Connection. To learn more, visit SunGuardGlass.com.

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