

SunGuard IS 20 Technical Information



BUILD WITH LIGHT®

SunGuard® IS 20 interior-surface coating delivers 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
Cleanable, smooth surface
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

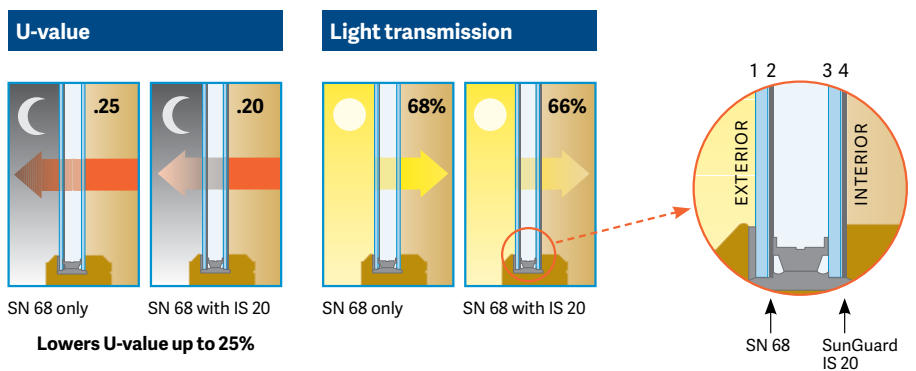
SunGuard® IS 20 can be paired with other SunGuard high-performance low-e coatings to improve thermal performance

Dimensions

Stock sheet sizes:

- Standard—96" x 130"
- Maximum—98" x 144"
- Other sizes may be available upon request

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



Test Specifications

Glass configuration: 6.0 mm on Clear / 1/2" 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:

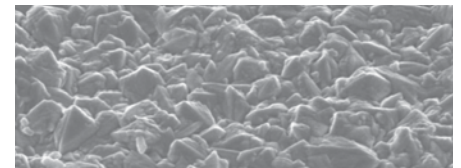
- withstand machine washing during fabrication (test—1,000 cycles with a wet DQB brush)
- sustain daily wear and tear, including incidental contact with people, clothing, window treatments, etc. (test—1,000 cycles with a dry DQB brush)

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

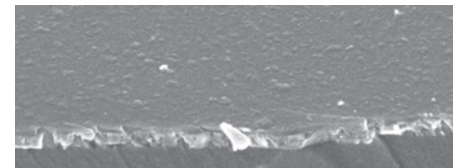
Cleanability

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.



Pyrolytic glass surface, magnified at 20,000 times, using an SEM.



SunGuard IS 20 surface, magnified at 20,000 times, using an SEM.

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.

Test	Results
Exposure to harsh chemicals Ammonium hydroxide; hydrochloric acid; nitric acid; sulfuric acid; sodium hydroxide; concrete splash	No damage
Paint and stain resistance Oil; acrylic; latex; urethane; wood stain	No paint residue, no damage
Removability of tape Painter's tape; duct tape; VHB; polyisobutylene; aged duct tape	No tape residue, no damage
Sealant compatibility (removal) Synthetic rubber; silicone; polyurethane; latex (Testing included new and UV-aged sealants.)	No sealant residue, no damage
Sealant compatibility (adhesion) Synthetic rubber; silicone; polyurethane; latex	No adhesive failure

GUARDIAN® SUNGUARD®

Advanced Architectural Glass

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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Guardian Architectural Hotline
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