

## 3.2mm Low Iron Solar Glass

Glossy, Matte-Matte /Prismatic, Satin & Super Satin Glass

### Features

**High Light Transmission:** Glass with high light transmission allows more solar energy, including visible light and infrared radiation, to pass through, maximizing natural light and heat in a space.

**Color Neutrality:** Glass without a green tint provides accurate color representation, preserving the true colors of objects and scenes viewed through it.

**Reduced Light Reflection:** Glass with reduced light reflection minimizes glare, improving visibility and providing clearer views in environments with excessive sunlight or artificial lighting.

**Longer Lasting:** Glass with reduced spontaneous breakage from impurities offers enhanced durability, ensuring safety and reducing maintenance costs.

### Glass Shapes Capabilities

Your building is a mosaic of solar facade panels, each a distinct masterpiece, with options ranging from the elegance of perfect circles to the sharp sophistication of triangles, to hexagons mirroring the precision of nature's honeycombs, and even more shapes that dare to defy convention.

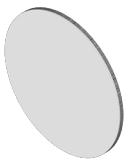
#### Rectangular



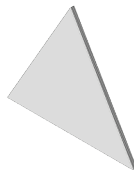
#### Square



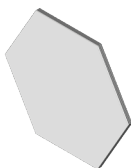
#### Circular



#### Triangular



#### Hexagonal

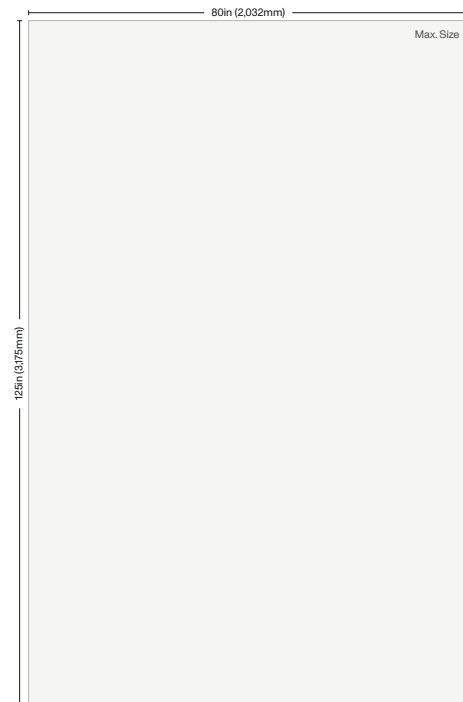


#### Parallelogram



### Glass Size Capabilities

Mitrex offers Solar panels in virtually any size. Our maximum panel size can be 125 in by 80 in.



## Mechanical Information

|   | Imperial                             | Metric                             |
|---|--------------------------------------|------------------------------------|
| Thickness   | 0.13 ± 0.008in                       | 3.2 ± 0.2mm                        |
| Weight  | 1.54lb/SQFT                          | 7.53kg/m <sup>2</sup>              |
| Dimensional Tolerance   | ±0.04in                              | ±1.0mm                             |
| Density   | 0.09lbs/in <sup>3</sup>              | 2.5gm/cm <sup>3</sup>              |
| Corner  | Radius, Chamfer or cut (0.04-0.16in) | Radius, Chamfer or cut (1.0-4.0mm) |
| Overall Bow / Warp (EN 12150-1:2015)                            | 0.16in / 39.37in                     | 4.0mm / 990mm                      |
| Local Warp (EN 12150-1:2015)                                    | 0.002in / 11.81in                    | 0.5mm / 300mm                      |
| Bending Strength (EN 12150-1:2015)                              | 516.06lb/in                          | 90N/mm                             |
| Iron Content (AAS)  | <120 ppm                             |                                    |
| Scratch Hardness (Mohs)   | 5                                    |                                    |
| Fragmented Particles in 50×50mm (If Tempered) (EN 12150-1:2015) | Min 40 pcs                           |                                    |
| Edge  | At least seamed                      |                                    |

## Glass Quality (EN 572-5:2012/5.2.1)

### Spherical Bubbles/Core/Solid Inclusions Per 1m<sup>2</sup>/39.37in

| Imperial Diameter | Metric Diameter | Max Allowed |
|-------------------|-----------------|-------------|
| ≤ 0.02in          | ≤ 0.5mm         | Unlimited   |
| > 0.02in ≤ 0.06in | > 0.5mm ≤ 1.5mm | 6           |
| > 0.06in ≤ 0.12in | > 1.5mm ≤ 3.0mm | 2           |
| > 0.12in          | > 3.0mm         | 0           |

### Scratched Per 1m<sup>2</sup>/39.37in Max Allowed

| Width              | Length            |                                |                    |
|--------------------|-------------------|--------------------------------|--------------------|
|                    | ≤ 0.2in / ≤ 5.0mm | > 0.2 ≤ 0.4in / > 5.0 ≤ 10.0mm | > 0.4in / > 10.0mm |
| < 0.04in / < 1.0mm | 4                 | 2                              | 1                  |
| > 0.04in / > 1.0mm | 0                 | 0                              | 0                  |

### Longitudinal Bubbles Per 1m<sup>2</sup>/39.37in Max Allowed

| Width                           | Length             |                                  |                     |
|---------------------------------|--------------------|----------------------------------|---------------------|
|                                 | ≤ 0.4in / ≤ 10.0mm | > 0.4 ≤ 0.99in / > 10.0 ≤ 25.0mm | > 0.99in / > 25.0mm |
| < 0.04in / < 1.0mm              | 4                  | 2                                | 0                   |
| > 0.04 ≤ 0.08in / > 1.0 ≤ 2.0mm | 2                  | 0                                | 0                   |
| > 2.0mm / > 0.08in              | 0                  | 0                                | 0                   |

## Optical Characteristics

### Transmittance And Reflectance Values At AM 1.5, 380-1100 nm

| Surface Finish          | Thickness |        | Transmittance | Reflectance |
|-------------------------|-----------|--------|---------------|-------------|
|                         | Imperial  | Metric |               |             |
| Glossy                  | 0.12in    | 3.2mm  | 92%           | 8%          |
| Matte-Matte / Prismatic | 0.12in    | 3.2mm  | 94%           | 6%          |
| Satin                   | 0.12in    | 3.2mm  | 91%           | 8%          |
| Super Satin             | 0.12in    | 3.2mm  | 92%           | 8%          |

### Diffusion Properties According To ASTM D1003-13

| Surface Finish          | Thickness |        | Luminous Transmittance* | Diffuse Transmittance** | Haze*** | Gloss at 85° |
|-------------------------|-----------|--------|-------------------------|-------------------------|---------|--------------|
|                         | Imperial  | Metric |                         |                         |         |              |
| Glossy                  | 0.12in    | 3.2mm  | 91.8%                   | 1.6%                    | 0.6%    | 59%          |
| Matte-Matte / Prismatic | 0.12in    | 3.2mm  | 92.3%                   | 2.4%                    | 1.2%    | 6%           |
| Satin                   | 0.12in    | 3.2mm  | 75.4%                   | 9.7%                    | 12.9%   | 32%          |
| Super Satin             | 0.12in    | 3.2mm  | 88.4%                   | 79%                     | 89.3%   | 5%           |

\*Luminous Transmittance: Ratio of transmitted light to the incident light influenced by absorption and reflection. - \*\*Diffuse Transmittance: Portion of light that is scattered/diffused by the glass. - \*\*\*Haze: Percentage of transmitted light which deviates more than 2.5° from the incident beam on average.

Notes: All aforementioned glass is monolithic with texture on side 1 (if any). - Sunny side aesthetic coatings are not included in this data and will affect the results.