

Specification of Flat Borosilicate Glass 3.3

Borosilicate float glass is produced by the technology of float glass production.

Main ingredients of this float glass are sodium oxide, Na<sub>2</sub>O, boron oxide (B<sub>2</sub>O<sub>3</sub>), silicon dioxide SiO<sub>2</sub>.

In those ingredients, boron and silicon have high content. boron: 12.5~13.5%, silicon 78~80%.

In this case, this special glass is called *borosilicate float glass*.

The feature of this glass is that it has small thermal expansion coefficient, good thermal stability, chemical durability and electrical property. Therefore, it's chemical resistant, heat resistant and mechanical property is excellent.

So borosilicate glass is also called *heat resistant glass*.

**Features**

Our Flat Borosilicate 3.3 Float Glass Sheet is equivalent with SCHOTT BOROFLOAT®

|  |  |
|--|--|
| 1). Mechanical Performance                                 |  |
| Density ρ  | 2.23±0.02g/cm <sup>3</sup>                       |
| 2). Thermodynamic Performance                              |  |
| Thermal expansion coefficient                              | (0-300) 3.3±0.1×10 <sup>-6</sup> K <sup>-1</sup> |
| Softening point  | 820±10   |
| Strain point   | 516±10   |
| Caloricity   | (20-100) 0.82KJ × (kg×K) <sup>-1</sup>           |
| Thermal coefficient  | 1.2W×m×K <sup>-1</sup>                           |
| Thermal shock resistance                                   | 180K   |
| Strengthening type   | 300K   |
| Identical temperature difference                           | 100K   |
| Maximum working temperature Short time (<10h):             | 500  |
| Long time (>10h):  | 450  |
| 3). Chemical Performance                                   |  |
| Water resistance   | ISO719/DIN12111 HGB1/ISO720 HGA1                 |
| Acid resistance  | ISO1776/DIN12116 1                               |
| Alkali resistance  | ISO695/DIN52322 A2                               |
| 4). Optical Property                                       |  |
| Refractive index Nd:                                       | 1.47384  |
| Transmittance spectrum curve                               |  |
| 5). Electrical Property                                    |  |
| Specific resistance lgρ                                    | 8.0Ω ×cm at 250                                  |
| Dielectric dissipation fraction tan σ (1 megacycle at 20): | 38×10 <sup>-4</sup>                              |
| Dielectric constant  | ε =4.7   |

**3H Glass Co.,Ltd**

0 complaint since the company established  
 3 hours to the biggest port of North China  
 12 years on glass processing

## Dimension

|   |            |
|---|------------|
| 1150x1700mm                                   | 1150x850mm |
| Other size could be produced upon the request |            |

## Thickness

|       |        |      |       |
|-------|--------|------|-------|
| 2mm   | 2.6mm  | 3mm  | 3.3mm |
| 3.8mm | 4mm    | 5mm  | 5.5mm |
| 6mm   | 6.5mm  | 7mm  | 7.5mm |
| 8mm   | 9mm    | 10mm | 12mm  |
| 15mm  | 15.5mm | 17mm | 20mm  |

## Capabilities

Beveling, Cutting, Drilling, Edgework, Tempering, Bending, Sandblast, Silk screening, Laminating,

## Applications

### 1. 3D Printer industry

e.g. build platform, heated bed.

### 2. Home application

e.g. internal panels in ovens and panels in microwave oven.

### 3. Lighting industry

e.g. cover panels for high power floodlights and projectors

### 4. Fireplace/Heater

e.g. front panel in gas/ethanol/electrical fireplace, induction heater.

### 4. Protection

e.g. bullet-resisting glass cover of high grade watch

### 5. Advance building flameproof glass

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