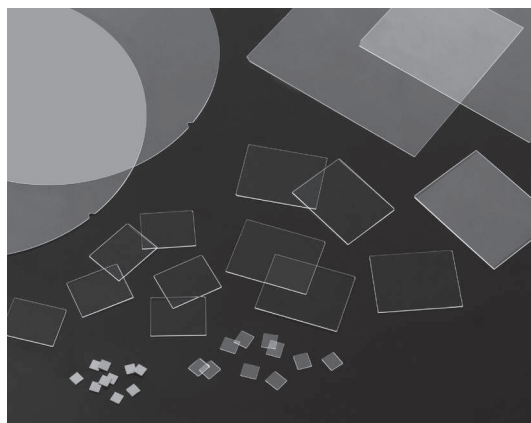


# Flat Glass for Electronic Devices

We offer flat glass with various properties for electronic devices. You can choose the glass that is most suitable for the purpose of use.

## Features

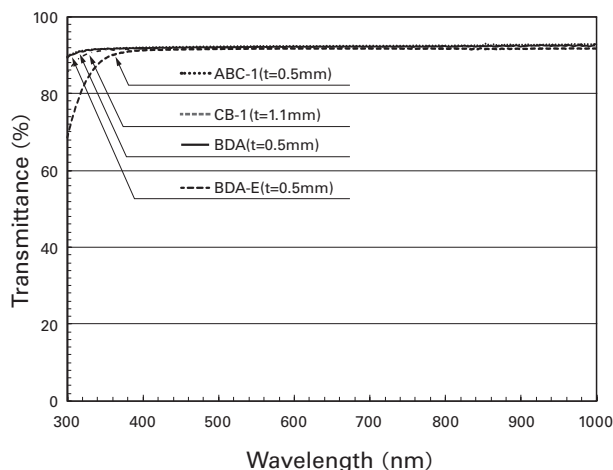
1. High quality glass is manufactured using advanced technology.
  - Technology for achieving very smooth glass surfaces
  - Technology to achieve higher surface cleanliness
2. BDA-E with excellent chemical resistance can be used for a wide range of electronic devices.
3. CB-1 with a thickness of 1.1 mm can be used for a wide range of electronic devices.
4. ABC-1 is a low expansion alkali-free glass.
5. BDA is a glass exclusively developed not to influence the pixels of high-density image sensors.



## Properties

| Properties/Glass Code            |                                |                      | BDA-E | CB-1 | ABC-1 | BDA  |
|----------------------------------|--------------------------------|----------------------|-------|------|-------|------|
| Coefficient of thermal expansion | 30-380°C                       | $\times 10^{-7}/K$   | 69    | 75   | 37    | 66   |
| Strain point                     |                                | °C                   | 530   | 525  | 685   | 540  |
| Annealing point                  |                                | °C                   | 570   | 560  | 745   | 575  |
| Dielectric constant              | 1MHz, 25°C                     |                      | 6.8   | 6.9  | 5.6   | 6.5  |
| $\tan \delta$                    | 1MHz, 25°C                     | $\times 10^{-4}$     | 100   | 100  | 10    | 100  |
| Hydrolytic resistance            | JIS R3502                      | R <sub>2</sub> Omg   | 0.05  | 0.08 | <0.01 | 0.07 |
| Light transmittance              | $\lambda=500nm$ ,<br>$t=0.5mm$ | %                    | 92    | 92   | 92    | 92   |
| Refractive index ( $n_d$ )       |                                |                      | 1.51  | 1.51 | 1.53  | 1.51 |
| Density                          |                                | $\times 10^3 kg/m^3$ | 2.44  | 2.47 | 2.52  | 2.44 |

## Transmittance



## Dimension example

|       | Dimensions      | Thickness | Tolerance of thickness |
|-------|-----------------|-----------|------------------------|
| BDA-E | 2×2mm-360×440mm | 0.1-1.1mm | ± 0.01- ± 0.1mm        |
| CB-1  |                 | 1.1mm     |                        |
| ABC-1 | Φ100-300mm      | 0.3-0.5mm |                        |
| BDA   | 2×2mm-50×50mm   | 0.3-0.7mm |                        |

Various optical coatings can be designed as requested.