# Application Note - Using Beam Splitters for Teleprompters

#### **Glass Fabrication**



Coating Deposition



#### **CNC Machining**



### **Strengthening - Chemical & Heat**



**Screen Printing of Graphics** 



Abrisa Technologies, a member of HEF Photonics, is a globally recognized technology glass fabrication and optical thin film coating company with expertise in high volume manufacturing and engineering capabilities, delivering Total Solutions that provide excellent performance, fitness-for-use and economies of scale.

Our US based, state-of-the-art ISO 9001:2015 and ITAR registered facilities include Abrisa Industrial Glass in Santa Paula, CA and ZC&R Coatings for Optics in Torrance CA. These two divisions produce solutions from cut-to-order coated glass components to custom complex and ready-to-install fabricated, strengthened, optically coated, electronically enabled and branded sub-assemblies.

Our Total Solutions serve a variety of markets including Micro-Electronics, Defense and Avionics, Display, Industrial Automation, Optical Sensors, Imaging, Photonics, Medical & Dental. Life Science and more.







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# Your Total Solution Partner Application Note - Using Beam Splitters for Teleprompters

Abrisa Technologies' teleprompter beam splitter glass is used when talent needs to access text or prompts from an LCD or digital projection system and maintain a direct facing camera or audience orientation without obscuring their face. Our 3mm thick optical grade beam splitter solution has an optimized all dielectric 65% transmission and 35% reflection front surface mirror coating and a low loss rear surface anti-reflection (AR) coating preventing ghosting. The coatings and optical grade low iron soda lime glass result in a beam splitter having ample reflection so talent can easily see, clear text image prompts and high transmission for distortion free, color neutral images needed by the camera. The durable, easy-to-clean beam splitters can be quick turned in fabricated "made to fit" formats up to 126" x 88" (11 ft. x 7ft.).

Teleprompters are now ubiquitous in professional and consumer applications, studio environments, indoor and outdoor broadcasting, work-at-home desktop studios, distance learning, live streaming, and video conferencing. Abrisa Technologies' teleprompter beam splitter glass is the ideal choice for free standing presidential stage/speech set ups, camera-mounted configurations and interface with personal cell/tablet devices.

## Features:

- High Definition Distortion Free Imaging
- Non-Ghosting/Anti-Reflection Coating
- Tint-Free/Color Neutral/Optically Clear
- Quick Turn Made to Fit Format Options
- Large Formats up to 126" x 88" (3mm)
- Easy-to-Clean (Optional Oleophobic on AR Side)



Schematic representation: (1) Video camera; (2) Shroud; (3) Video monitor; (4) Clear glass or beam splitter; (5) Image from subject; (6) Image from video monitor.

## **Options:** (Consult Factory)

- Ratios of Transmission & Reflection
  - Standard 65T/35R 3mm Thickness
  - Special T/R Available Upon Request
- Alternate Thicknesses (1, 3, 4, 5, 6 mm)
- **Orientation Marking for Easy Installation**

## Other:

- Beam Splitters for Pepper's Ghost
- Beam Splitters for Heads Up Displays
- Beam Splitters for Holographic Displays
- Beam Splitters for Flight Simulation
- Semi-Transparent Mirror Hidden Displays

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# **Application Note - Using Beam Splitters for Teleprompters**

## Parameters to Consider When Specifying Beam Splitters for Teleprompter Use:

When choosing a Beam Splitter for your see-through camera based or presidential speech teleprompter application there are a number of parameters to consider that will ensure that your talent will be viewing the best color neutral, distortion and ghost free text images. The Beam Splitter should be formatted to perfectly fit into your mounting scheme for fast, easy, safe, and hassle-free installation, while being supplied with aesthetically pleasing edge finishes for those in a frameless configuration.

# Select the Projected LCD Image Intensity you Desire Your Talent to See

**Transmission (T)/Reflection (R) & Thicknesses:** Coated on Low Iron Soda Lime Float Glass

- 65T/35R 3mm (Standard)
- 50T/50R 1mm
- Custom T/R & Thicknesses (1mm 6mm)



Low Iron Color Neutral Soda Lime

"Green Tint" Standard Soda Lime

## Pick the Format that Best Suits the Installation Requirements

### Shapes:

- Square
- Rectangle
- Trapezoidal
- Custom

## **Choose Edge and Corner Finishes for Handling and Aesthetics**

### **Edge and Corner Options:**

- Economical Cut/Seam Edges
- Safe and Aesthetic Pencil Ground or Pencil Polished Edges
- Easy-to-Mount Dubbed or Radiused Corners

**Cut/Seam Edge:** A sanded edge that is not sharp, has the look of a natural cut.

**Pencil Ground Edge:** A machined edge with a smooth rounded profile. The ground edge has a sanded appearance.

**Pencil Polished Edge:** A machined edge with a polished, rounded profile. The polished edge has a similar appearance to the face of the glass.





Pencil Polished Edge - Low Iron Glass

# Application Note - Using Beam Splitters for Teleprompters



Presidential Style Teleprompter (Beam Splitter Mirror)



Camera-Mounted In-Studio (Beam Splitter Mirror)



**Camera-Mounted On Location (Beam Splitter Mirror)** 

# CALL NOW - (877) 622-7472

Quick Turn 65T/35R - 3mm - Beam Splitter Teleprompter Glass



#### **Coatings:**

- Custom V-Coat, Multi-band, Broadband AR
- AR Coatings to MIL-C-14806 A
- ITO/IMITO for EMI Shielding, Heater, LC Devices
- Custom SWP, LWP, Bandpass, UV & NIR Blocker
- Broad/Narrowband Scanning Mirror Coatings
- Deposition onto Filters, Silicon & Other Materials
- Autoclavable, Bio or Chemically Compatible

#### Substrates:

- Fabrication to Shape & Size
  - Cut & Seam or Circle Ground to Size & Shape
  - Precision CNC Holes, Bevels, Steps, Notches

#### • Damage Resistant Substrates

- HIE™ Aluminosilicates
- AGC Dragontrail™
- Corning<sup>®</sup> Gorilla<sup>®</sup>
- SCHOTT AS 87
- Chemically Strengthened Soda Lime Float
- Low Expansion Chemically Resistant Substrates - SCHOTT Borofloat<sup>®</sup> 33
- Ultra Thin & Wafer Substrates
  - AGC EN-A1
  - Corning<sup>®</sup> Eagle XG<sup>®</sup>
  - SCHOTT AF32, D263  $^{\rm @}$  & AS 87
- Other
- Applied Films & Tints
- Gasket Application
- Edge Treatment/Blackening
- Laser Marking (QR & Barcodes, S/N)

### Easy-to-Clean & Anti-Fog Solutions:

- Oleo/Hydrophobic Options
- ITO Heater, HTAF Anti-Fog Solutions

### Graphics & Bus Bars:

- Color Matched Epoxy Ink
- Non-Conductive Ink
- High Temperature Frit Ink
- Dead Front Ink Partially Transmissive