

# Hidden Television

*Dielectric Transparent Mirror Glass* Technical Specifications



Hidden Television **Dielectric Mirror** – Transparent mirror.



## Hidden Television **Dielectric Mirror**

**Dielectric Mirror** is a highly reflective mirror coating on a clear substrate.

Dielectric Mirror gives digital displays, including television and video screens a modern, transitional look. It is ideal for concealing single or multiple digital displays and video screens in commercial and residential applications.

When the screen is turned 'off' Dielectric Mirror maintains a mirrored appearance, which conceals the screen. When the screen is turned 'on' the image on the screen shows through.

With its highly reflective and robust coating, Dielectric Mirror can be used as a traditional mirror with a small video screen concealed behind. Ideal for bathroom applications, this allows people to easily view themselves in the mirror while watching television.

Dielectric Mirror is very durable and can be easily handled, transported and processed; including toughening and laminating. Due to the hard pyrolytic coating, it does not degrade over time, giving the product a virtually unlimited shelf-life.

### **Applications**

- Bars and restaurants
- Bathrooms
- Digital signage
- Anyway where a TV etc. might be situated, for example living rooms, bedrooms, studies, family rooms, etc.



Hidden Television **Dielectric Mirror** digital display mirror for high light applications

Hidden Television **Dielectric Mirror** offers the same qualities as the original product, yet it is designed for use in applications with high ambient light.

Applications

- Hotel rooms
- Lobbies and lounges
- Retail
- Digital signage

Benefits

- Durable pyrolytic coating
- Easy to handle, process and transport
- No edge deletion required
- Virtually unlimited shelf-life



Hidden Television **Dielectric** and Hidden Television **Vanity Vision** – performance data

Product	Thickness (mm)	Glass substrate	Visible transmittance (%)	Visible reflectance coated side (%)	Visible reflectance glass side (%)	Positioning Coating
Dielectric	4mm	Clear	* &	' 8	* &	Mirror coating towards viewer-side (surface #1)
	6mm	Clear	60	40	40	Mirror coating towards viewer-side (surface #1)
Vanity Vision	6mm	Clear	25	70	70	Mirror coating towards viewer-side (surface #1)



Vanity and Dielectric mirror is not intended for use in exterior glazing where installations such as large curtain walls or structural glazing could reveal a slight non-uniformity of coating which would typically not be perceptible in interior applications.

### **Unpacking**

The coated surface is hard and is not easily damaged, so cases can be opened normally.

Do not mark the coated surface with adhesive labels or wax crayons, and do not drag suction cups or metal objects across the surface. The coating will not be damaged by such materials, but it may be difficult to fully remove fine wax, rubber or metal residues due to the submicroscopic roughness of the coating.

### **Surface Identification**

The coating is highly reflective so the coated side can readily be identified by holding a pen or pencil point against the surface and looking for one or two reflected images. When only one reflected image is seen, and the pencil point is touching the reflected image point, then the pen or pencil is touching the coated side. If two reflected images of the pen or pencil point are seen (one about 20 times brighter than the other), and the point is touching the less bright image, then the point is touching the glass side.

The coating is not electrically conductive so a hand-held ohm-meter or continuity meter can NOT be used to identify the coated side by touching two probes to the coating.

With practice the coating can be felt by the slight increased drag when finger tips or a finger nail are rubbed on the coated side.

### **Inspection**

The glass can be inspected, in reflection, for uniformity of coating by placing it in front of a mat black non-reflective background with a uniformly lit white surface behind the viewer, reflected in the glass. This simulates the viewing condition where a person looks at their reflection with the display turned off.

Inspections should also be performed in transmitted light by viewing through the glass to a uniformly bright surface with a dark background behind the viewer (to eliminate distracting reflections) to simulate ideal viewing of an operating display.

### **Coating Quality Specification for Cut Sizes**

When viewed in reflection or transmission, as described above, from a distance of 10 feet (3 m), the coating may have barely perceptible variations, but it will not have objectionable, bands, streaks or color differences as detailed in ASTM C 1376-03, "Specification for...Coatings on Glass".

There shall be no single visible spots on the coating greater than 3/32" (2.4 mm) diameter in the outer area, or greater than 1/16" (1.6 mm) dia. in the central area.

There shall be no more than 2 readily apparent blemishes in a 3" (75 mm) dia. circle, or no more than 5 in a 12" (300 mm) dia. circle.

### **Packing**

When packing Vanity Vision or Dielectric mirror for shipping with the coating exposed, it is preferable to use paper or hardwood flour as an interleaving medium. Over long distances, the acrylic beads in Lucor powder can be abraded and leave a deposit on the coating which is difficult to remove.

Care should also be taken to minimize the contact of Styrofoam packing materials with the coated surface. Styrofoam packing materials can leave a rub mark on the coating that is difficult to remove.

### **Installation**

Procedures are similar to those used for plain glass. The coating is compatible with commonly available glazing sealants.

### **Maintenance**

Vanity or Dielectric mirror can be cleaned and maintained by hand washing with non-abrasive, ordinary, glass cleaning solutions. For hand washing, a mild detergent and water solution is recommended. Uniformly apply the solution to the glass and wash with a clean, soft cloth, sponge, or pad. Rinse thoroughly with clean water and wipe or squeegee dry immediately. Make sure no metal parts of the cleaning equipment touch the reflective glass surface, and that no abrasive particles are trapped between the glass and the cleaning materials.

Stubborn stains can be removed with organic solvents such as mineral spirits, de-natured alcohol, acetone, or MEK, following appropriate safety procedures. The solvent wash should be followed immediately by a detergent wash and clear water rinse to remove solvent and dirt residues.

Do not use harsh chemical cleaners, abrasives, opaque liquid cleaning solutions such as Soft Scrub® by Clorox, steel wool, or razor blades on the reflective surface.