

## PrintFree™ and HEA®



### Key Features

- Repels fingerprints
- Easy to clean with a soft cloth
- Invisible to the naked eye
- Chemically inert coating resists stains
- Smooth surface minimizes abrasion and friction
- Water contact angle >110°C
- UV and temperature resistant



### Applications

- Command and control displays
- Touch screen displays
- Ruggedized displays
- Avionics displays
- Medical displays
- GPS displays

### PrintFree™ and HEA® Coating Enhance Viewing Experience

A leading provider of high-efficiency antireflection (HEA®) coating for display applications, JDSU has six decades of experience in producing coatings with a photopic reflection rate of less than 0.20 percent.

With the PrintFree™ top coat, JDSU eliminates the traditional tradeoff of a high-performance HEA coating—its sensitivity to contamination when foreign substances adhere to the coating. Surface contamination also creates an additional optical layer that greatly increases reflection at the point of contact.

Our PrintFree coating eliminates this tradeoff by enhancing HEA performance with a surface that repels fingerprints, water, oil, and chemicals. It is chemically bonded directly to the optical layer of the HEA coating, allowing it to maintain its industry-leading low reflectivity. The result is a smoother, more durable surface that can be cleaned with a simple wipe of a soft cloth.

The durable, inert, PrintFree top surface is the latest addition to our HEA solution, making it ideal for information displays—without the tradeoff.

**PrintFree™ Features**
**• Contact Angle**

When a drop of distilled water is placed on the coating, the contact angle of the water shall be greater than or equal to 110 degrees. The contact angle measurement device used at JDSU is a Kruss G10 contact angle measuring instrument.

**• Humidity Resistance**

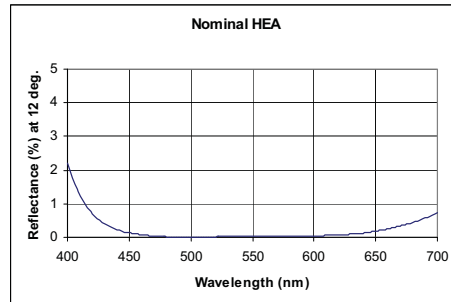
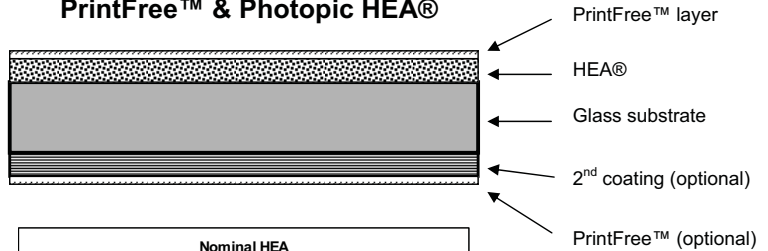
The coating shall be subjected to continuous exposure for 96 hours in an atmosphere of 120 degrees F  $\pm$  4 degrees and 98 percent  $\pm$  two percent relative humidity without evidence of deterioration as referenced in paragraph 4.5.8 of MIL-C-675C.

**• Pen Cleaning**

Marking the coating with a black Sanford® Sharpie™ No.30000 Fine Point Permanent Marker ink pen, should show no visible pen marks when wiped with a Class 100 clean room compatible wipe and viewed by reflection using standard lighting conditions.

**• Adhesion**

The coating shall show no evidence of damage after “snap tape” test by which Scotch® brand tape is pressed firmly against the coated surface and removed quickly with a snap of the wrist.

**PrintFree™ & Photopic HEA®**


Typical reflectance performance (one side coated, reference only)

	450nm	550nm	650nm
Reflectance at 10 degrees	0.30%	0.15%	0.30%