

Materion Barr Precision Optics & Thin Film Coatings provides a broad array of technologies including complex optical filters, filter arrays, lens coatings and optical thin film component assemblies. Diverse markets are composed of: commercial, defense, life sciences & medical, thermal imaging, and space, science & astronomy industries.

Silflex Plus Coating

Hydrophobic Silflex

The Challenge

Our high-performance Silflex Plus Coating prevents adhesion of dust, oil and grease and facilitates removal of fingerprints and stains from a mirror's surface. These dirt repelling properties, combined with our reflective multilayer coating, enable your mirror to deliver high reflectivity even in harsh environments and rough applications. In addition, this very hard coating increases the life of your mirror by protecting it against wear and scratches.

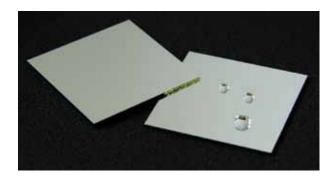
This makes Silflex Plus Coating the ideal protection for touch-screen applications and optics devices. It will make your product perform longer, brighter and clearer. Our coating consists of a multilayered reflective coating covered by a single hydrophobic/ oleophobic layer and can be applied to most common optical glasses.

Benefits

- Liquid and dirt repelling coating
- Contact angle larger than 110°
- High reflectance
- Completely reflectance in VIS
- Scratch and corrosion resistant
- Easy to clean

Applications

- Projector Display
- Spectroscopy
- Mobile Phones / Smart Phones
- Medical Displays
- Automotive HUD
- Entertainment
- Instrument
- Other Optical Devices



Specifications

The Silflex Plus Coating does not influence reflection properties in the VIS spectrum and can be combined with different kinds of thin film coatings.

- Contact angle: >110°
- Reflectance: >97.5% @ 420~680nm AOI 75
- Coating Hardness as per ISO15184: H5
- Surface quality: 80/50 (standard)
- Size: up to 160×110
- Substrate material: Upon request

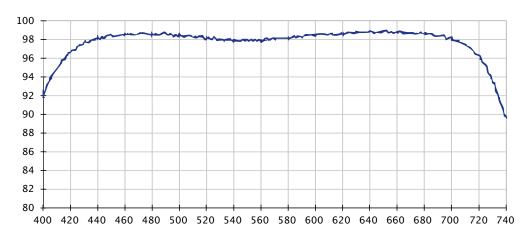
Layer Structure



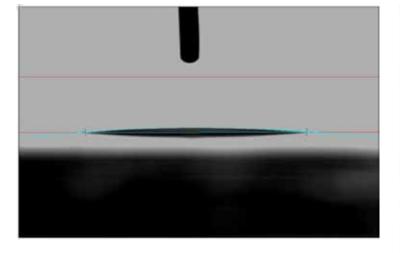
- Hydrophobic layer
- 2 Silflex layer
- 3 Glass substrate



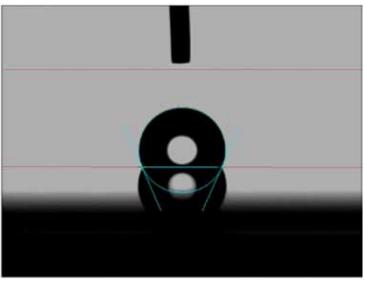
Spectral Curve of Silflex Plus Coating



Raw glass
Contact angle = $5\sim6^{\circ}$



With AR TopClean Coating Contact angle >110°



Materion is a global advanced materials company, dedicated to providing solutions that enable our customers' technologies and drive their growth. Our products include precious and non-precious specialty metals, precision optical filters, inorganic chemicals and powders, specialty coatings, specialty-engineered beryllium alloys, beryllium and beryllium composites, and engineered clad and plated metal systems. The Materion business is structured to enhance our ability to provide customers with innovative, best total-cost solutions.

MATERION BARR PRECISION OPTICS & THIN FILM COATINGS

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