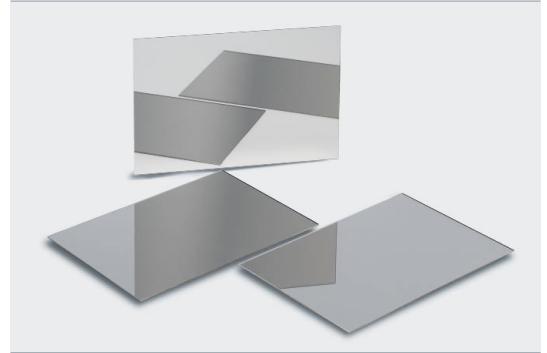


Silflex™

High Reflectivity Silver Mirror for Projection Display

Our Silflex™-family stands for a broadband, high-reflectivity silver-coated mirror offering unprecedented performance and durability. The blue enhanced Silflex™ VIS represents the high end version whereas Silflex™ ECO would target cost sensitive applications. Silflex™ HLE3 is an AOI = 75° optimized mirror used for our LightTunnel™ applications in particular.

Unlike enhanced aluminum and all-dielectric coatings, Silflex™ is virtually insensitive to polarization and angle of incidence, yet maintains > 98% for VIS resp. > 97% for ECO/HLE3 version reflectivity throughout the visible spectrum. The patented design is extremely robust, providing reliable performance and long life even when exposed to extreme environmental conditions (US Patent No. 5.751.474).



Benefits

- Highest light output when used in optical systems
- Virtually free of polarization effects
- Almost independent of different angles of incidence
- No color shift
- Excellent environmental stability
- ROHS compliant

Applications

Optics Balzers Silflex™ is designed for maximizing the efficiency of optical systems. An example of this is the folding mirrors used in multimedia, rear projection and data projection systems. Increased reflectivity of the light engine folding mirrors relate directly to increased projector brightness. Silflex™ HLE3 is designed and optimized for the use in LightTunnel™ – a superior solution for light integration in projection systems

Technical data

Reflectivity

R_{avg}. 98% 420–680 nm (AOI = 45°)

► blue enhanced

Silflex™ VIS

Typical cosmetic specification based on ISO-norm

[size 30.0 × 30.0 mm]: 5/3 × 0.25; R 1.0

Reflectivity

R_{avg}. 97.5% 420–680 nm (AOI = 45°)

Typical cosmetic specification based on ISO-norm

[size 30.0 × 30.0 mm]: 5/3 × 0.40; R 1.0

Silflex™ ECO

R_{avg}. 97.5% 420–680 nm (AOI = 45°)

Typical cosmetic specification based on ISO-norm

5/2 × 0.40; R 0.2

Silflex™ HLE3

R_{avg}. 97.5% 420–680 nm (AOI = 75°)

Typical cosmetic specification based on ISO-norm

5/2 × 0.40; R 0.2

Dimensions

all types

Customized length × width × 1.1 mm

Substrate type

Floatglass, other substrates on request

Cleaning

Silflex™ withstands immersion in acetone, ethanol, etc. As specified in MIL-C-48497, para. 4.5.4.2., it can be cleaned with a soft cotton cloth soaked in mild soapy water, ethanol or other non-abrasive substances.

Operating temperature

200 °C max

Environmental reliability testing

Temperature (MIL-M-13508 C, para. 4.4.4)

5 h each at -62°C and +71°C.

Hardness (MIL-M-13508 C, para. 4.4.5)

50 strokes with cheesecloth

Adherence (MIL-M-13508 C, para. 4.4.6)

Scotch tape test

Humidity (MIL-M-13508 C, para. 4.4.7)

24 h at 49°C and r.h. 95%

Salt fog (MIL-M-13508 C, para. 4.4.8)

24 h salt spray 4.5% NaCl

ROHS compliant

**New Phone Numbers
from January 2010**

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Silflex™ VIS vs. Silflex™ ECO, AOI = 45°, random

Silflex™ HLE3, AOI = 75°, random

