

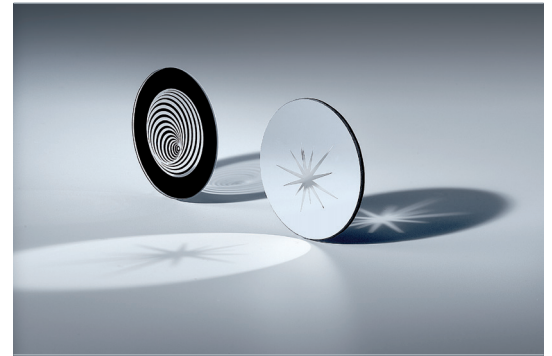
# GoboExtreme™ Dark

## High Performance Blanks for Gobo Imaging

Materion Balzers Optics' GoboExtreme™ Dark is a high performance glass black & white gobo blank that provides extended thermal stability and lifetime compared to conventional gobos. The high performance double coated design combines both:

- a "white side": highly reflective aluminum mirror that faces the lamp, transmitting light only where coating is removed to reveal the gobo image pattern, and
- a "black side": highly absorbing multi-layer coating that faces the lens and absorbs incident light to maximize contrast and prevent image ghosting.

Designs are available to support multiple imaging processes including laser ablation and chemical etching.



## Benefits

- Long-term temperature stability
- Extended lifetime
- High contrast image
- Prevents image ghosting
- Variety of shapes & sizes available
- Laser ablation & chemical etch versions
- High volume production capabilities
- Engineering support for custom designs

## Applications

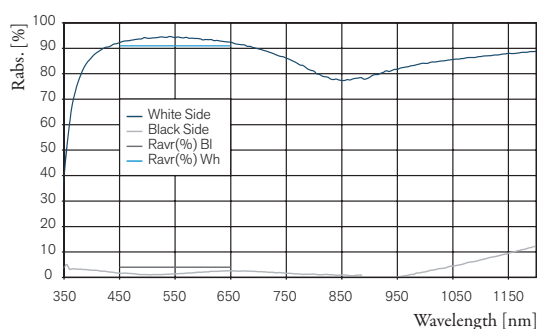
- Entertainment lighting
- Architectural lighting
- Retail sales lighting
- Concert, stage, club, worship
- High end luminaires
- Standard and custom images

## Technical Data

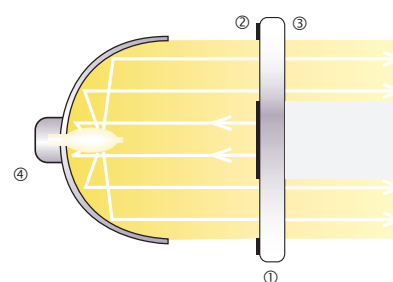
Spectral Characteristics, AOI = 0°	Standard	enhanced performance
<b>White Side</b> $R_{avg.}$ for $\lambda = 450-650$ nm	≥ 91%	≥ 93%
<b>Black Side</b> $R_{avg.}$ for $\lambda = 450-650$ nm	≤ 8%	≤ 4%
<b>Laser ablation option</b> $R_{abs.}$ for $\lambda = 1064$ nm	≤ 8%	≤ 5%
<b>Substrate Material</b> Heat resistant borosilicate glass		
<b>Temperature Stability</b> up to 350°C		

Other performance grades and specifications available on request.

## Spectral Performance GoboExtreme™ Dark Rabs. (%) White and Black Side



## Schematic of Gobo Extreme™ Dark



- ① GoboExtreme™ Dark
- ② White Side > Reflective (Facing Lamp)
- ③ Black Side > Highly Absorbing (Facing Lens/Optics)
- ④ Lamp/Reflector

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