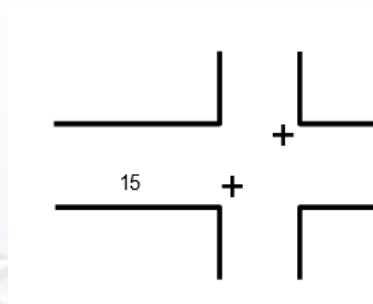
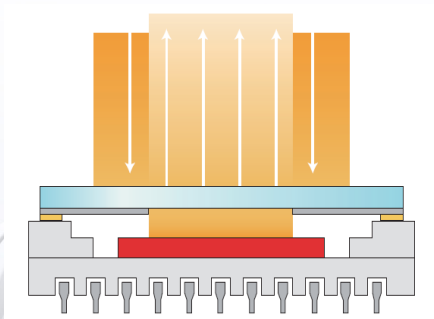


## Patterned Chrome

### The Challenge

Chrome patterns on planar components are widely used in the optical and semiconductor industry. Materion Thin Film Coatings emphasizes high resolution and low defect patterns in our product - optionally in combination with low defect functional coatings. In most applications, it is important for the chrome transmittance and reflectance to be low.

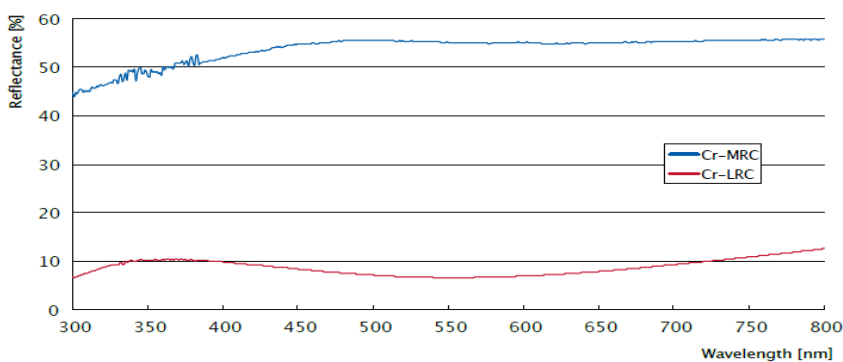


Patterned Chrome applied as aperture defining a light beam of a projected picture.

### Technical Data

- Chrome MRC Transmittance OD > 3
- Chrome MRC Reflectance at 436nm R = 28%
- Chrome LRC Transmittance OD > 3
- Chrome LRC Reflectance at 436nm R = 13%
- Minimum feature size 5  $\mu$  m
- Critical dimension  $\pm 1 \mu$  m
- Typical substrate sizes 200 mm round, 5" square

### Chrome Reflection

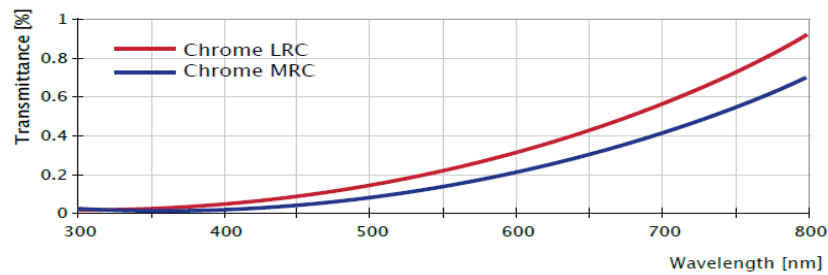


### Benefits

- Excellent adhesion on glass
- Low reflectance, low transmittance
- High resolution patterns possible
- High cosmetical performance (Low pinhole density)

# Patterned Chrome

## Chrome Transmittance



## Applications

- Apertures on lids for micro displays (front projection)
- Masking of patterned filters for optical sensors
- Masking of color filters for light projection
- Masks for photolithography
- Alignment marks and patterns

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