



REFLECTIVE GLASS DISC SPECIFICATIONS

METALLIZATION – 99.999% CHROME

Reflectivity, front surface:
Standard chrome thickness:
Reflectivity, back surface (optional):
Minimum feature size:
Bar / Window Ratio (50/50)
Maximum OD = 12" (300 mm):
Pattern to disc ID/OD <.010" TIR
ID Tolerance: .003" (80um)
Edge chip specification:
Flatness over entire substrate:
Parallelism:

SUBSTRATE - SODALIME GLASS

>60%
800-1000 angstroms
<10% 500-800nm
5um
+/- 2um
Thickness - .012" - .250" (.3 – 6.35 mm)
Special to <.002" TIR (25 um)
OD Tolerance: .003" (80um)
Maximum .010" (250 um) / Special to 50um
15um, Special to 5um
.001" over 4"

SODA LIME GLASS SUBSTRATE PROPERTIES

Refractive index- 1.523 (435nm), 1.513 (645 nm)
Thermal Conductivity: 0.937 W.m/m² °C
Soda Lime TCE: (0/300 °C): 8.6 x 10⁻⁶/°C
Annealing point: 546 C / 1015 F
Strain point: 514 C / 957 F
Softening Point: 726°C/1340°F
Substrate density: 2.44 g/cm³ @ 20 C / 68 F
Modulus of Elasticity (Young's): 7.2 x 10¹⁰ Pa
Modulus of Rigidity (Shear): 3.0 x 10¹⁰ Pa
Bulk Modulus: 4.3 x 10¹⁰ Pa
Poisson's ratio: .22
Density (at 20 °C/68 °F): 2.44 g/cm³
Hardness (Moh's Scale): 6 - 7
Knoop Hardness: 585 kg/mm² ± 20
Specific Gravity: 2.53
Specific Heat: 0.21
Specific Weight: 2,483 g/cm³