

Description:

1737F is a high temperature Alkaline Earth Aluminosilicate. This glass can withstand the rigorous, thermal cycles of the newer poly-silicate transistor processes. 1737F is more durable and has an even lower level of alkali than does 7059. In most cases, unannealed 1737F can even replace annealed 7059, resulting in a material cost savings to the user.

Available Thicknesses:

Thickness	Tolerance	Sheet Sizes
0.5mm	± 0.0500mm	18" x 18"
0.7mm	± 0.0762mm	33" x 45"
1.1mm	± 0.1020mm	33" x 45"

Properties:

Refractive Index: $n_d(\lambda = 589\text{nm}) = 1.5186$

Transmission: (estimated at .15 mm thick)

@290nm	8%	@340nm	72%
@300nm	17%	@396-2500nm	90%+
@320nm	46%	@2750nm	40%

Mechanical and Thermal:

Density	2.54 g/cm ³
Young's Modulus	7.14 x 10 ³ kg/mm ²
Thermal Coefficient of Expansion (0-300°C)	= 37.8 x 10 ⁻⁷

Chemical:

Solution / Time / Temp	Weight Loss (mg/cm ²)
5% HCL / 24 hrs. / 95°C	0.46
H2SO4 / 1M, 24 hrs. / 95°C	0.60
D.I. H2O / 24 hrs. / 95°C	0.01
10% HF / 20 min. / 22°C	6.34
10% NH4F•HF / 20 min. / 22°	1.17
5% NaOH / 6 hrs. / 95°C	1.76
HNO3 – 1M / 24hrs. / 95°C	0.24

Electrical:

Dielectric Constant @ 20°C; 1 MHz	5.7
Dielectric Loss Factor @ 20°C; 1 MHz	0.10%

Applications:

1737F is often used as substrates for Active Matrix flat panel displays, thin film coatings, and in low alkali substrate applications.

Flatness, parallelism, cutting tolerances, roughness, cosmetic defects and visual inspection all conform to the specifications to be agreed upon by Precision Glass & Optics and the customer.

