

Title: Window, 17" Diameter

Material: Corning Fused Silica #7980, Class 0, Grade F

Tolerance: .xx = ± 0.010 , .xxx = $\pm .005$, < = $\pm 0.01^\circ$, Surface finish 63 or less.

Note 1: Primary units are inches

Note 2: CAD files required in .stp format

Note 3: Flat surface, both sides, R = Infinity

A. Transmitted wavefront error <2 waves P-V @ 633 nm, 5 interferograms minimum

1. Alternate specifications: $\frac{1}{4}$ Wave P-V per 6" area within clear aperture at 633 nm, 5 interferograms minimum

B. Surface finish: 60-40 scratch-dig tested IAW MIL-0-13830A

C. Clear aperture: As shown

D. Wedge: 90 Arc min

Note 4: Antireflective coating:

A. Apply anti-reflective coating to both optical surfaces

B. Reflectivity $\leq 0.7\%$ at 532nm, 820 nm, 935 nm, 1064 nm, 1262nm, 1571 nm, 1596 nm, and 1645 nm at normal incidence

C. Damage threshold > 1 J/cm², 10 ns Pulse at 1064 nm

D. Coating must meet adhesion, abrasion, temperature and humidity requirements of MIL-M-13508.

E. Apply coating to witness sample of like substrate, finish and processing

Note 5: Optic and coating must not be damaged when exposed to a survival temperature range of -70C to +70C.

Note 6: Fine grind all non-optical surfaces with a maximum abrasive size of 16 miron.

Note 7: Optic must be process IAW MIL-W-1366F, Group M

A. Some specifications on this drawing exceed MIL-W01366F and take precedence over MIL-W-1366F

Note 8: Record and provide the following inspection data and documentation upon delivery:

A. Dimensional inspection

B. Transmitted interferograms of entire clear aperture, or five 6" diameter areas as noted in 3A.

C. Certificate of conformance specifically stating compliance with referenced military specifications

D. Material certification of conformance to manufacturers material data, demonstrating conformance to the material scarifications listed above.

Note 9: Mark part number and revision symbol with non-outgassing ink in approximate location and size shown, after surface finish. Y represents revision.

Note 10: Modulus of rupture specified by manufacturer is 52.4 Mpa (7600 psi)

