SALT-3120AS0009 version 1.0 (3 Jan 2003)

Fused quartz/ fused silica optical blanks

Scope of Project
These optical blanks will be used for the collimator and camera optics =
on the visible/ near-infrared spectrograph for the Southern African =
Large Telescope.

Cylindrical fused silica and fused quartz optical blanks.

One each of the following. Dimensions in mm. Tolerance +/- 0.2 mm.
=09
I Fused Quartz

Grade Name Diam Thickness=09
1 O-L2 136 60
2 O-L3 138 51
2 O-L4 160 39

Grade 1: stress birefringence < 1 nm/cm. =20
Grade 2: stress birefringence < 2 nm/cm. =20

All grades:
Supply birefringence data as map and data file. Mark birefringence =
reference axis on edge of blank.
Bubbles: cross section/100 cm3 < 0.1; Bubble size < 0.28 mm
Striae: MIL-G 174B Class A
Index uniformity: < 4=D710-6
OH content: < 50 ppm

Acceptable materials include:
Heraeus Infrasil 302 *

* annealing may be required to meet stress birefringence spec.=20

II Fused Silica

Name Diam Thickness=09
O-L8 208 48
A-L1 244 52
A-L3 250 70
A-L6 216 50
A-L8 176 100
A-L9 158 30

Stress birefringence < 2 nm/cm
Bubbles: cross section/100 cm3 < 0.1; Bubble size < 0.28 mm
Striae: MIL-G 174B Class A
Index uniformity: < 2=D710-6

Acceptable materials include:
Corning HPFS 7980 Grade 1C
Hereaus Suprasil 2 * =09
Dynasil Grade 4102 (for O-L8, A-L1, A-L6, A-L9 only) *
Schott Lithosil Q1 (H1) *
=09
* annealing may be required to meet stress birefringence spec.=20

Desired delivery: < 6-10 weeks