

1. Scope of Project

This specification describes four order blocking filters which are to be used at wavelengths 320 - 900 nm in the Prime Focus Imaging Spectrograph on the Southern African Large Telescope (SALT).

2. Optical Materials

50% Transmission (nm)	Manufacturer	Color Glass	Nominal Index	Thickness (mm)	Nominal Packing (mm) *
320	Schott	WG-320	1.58	2	5.6
340	Hoya	UV-34	1.67	2.5	5.0
385	Schott	GG-385	1.58	3	4.6
460	Hoya	Y-46	1.53	2.5	5.2

* Packing: Glue glass to Schott N-BaK 2 for total Optical Thickness = 8.1 ± 0.1 mm Fused Silica (633 nm)

3. Physical Properties (see figure)

Size: 130 x 90 (+0, -0.2) mm

Clear Aperture: > 120 x 80 mm

Edge Bevel 1-2 mm

Corner Bevel 3-4 mm

4. Performance specifications

Uncoated

Front/Back parallelism: better than 1 arcmin

Surface figure @ 633 nm: 1/4 wave per 25 mm peak-to-peak

Scratch/ Dig: 40-30

220 grit edge finish

Environment: -10 to +25 °C operating; -20 to +45 °C survival

5. Documentation

Transmission curve