

1. Scope of Project

This specification describes AR coatings for 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% Trans- mission (nm)	Manu- facturer	Color Glass	Index	Thickness (mm)	Packing (mm) *	Coating range (nm)
320	Schott	WG-320	1.58	2	5.5	320 - 700
340	Hoya	UV-34	1.67	2.5	4.9	340 - 750
385	Schott	GG-385	1.58	3	4.5	385 - 850
460	Hoya	Y-46	1.53	2.5	5.1	460 - 900

* Packing: Glue color glass to Schott N-BaK 2 (index 1.54) for total optical thickness = 8.0 ± 0.1 mm Fused Silica (633 nm)

3. Physical Properties

Size: 130 x 90 (+0, -0.2) mm (3-4 mm bevel on 4 corners; 1-2 mm bevel on 8 edges)

Clear Aperture: > 120 x 80 mm

4. Coating Performance Specifications

Broadband AR coating both surfaces (color glass and BaK 2 packing)

Maximum reflectance/ surface: <1% over coating range, for an F/2.2 beam (normal incidence - 13 deg).

Substrate temperature not to exceed 50 - 60°C.

5. Documentation

Reflectance curve (normal incidence) from actual samples.