

## 100 mm Crystalline coating demonstration polish specification

AUTHOR:	CHECKED:	DATE	APPROVALS		
			DCN NO.	REV	DATE
G. Billingsley		06-04-18	E1800167	V1	06-05-18

**Physical Configuration per D1800154-v2**

- 100 ± 0.3 mm diameter right circular cylinder
- 10 ± 0.5 mm thick
- Bevel for safety
- Wedge between 10 ± 5 arcmin
- Material: Fused silica; Heraeus 311, 312, 313 or 3001
- Registration mark: Arrow at minimum thickness. Chemical or laser etched, ground or sandblasted
- Serial number “E1800006-xx” Chemical or laser etched, ground or sandblasted. Number sequentially.

**Surfaces, Sides and Bevel Polish**

All Surfaces, Sides and Bevels shall be polished using a progression of smaller grit sizes. The last step before final polish shall be equal to or less than a five micrometer grit finish. These surfaces shall appear transparent with no grey, scuffs or scratches visible to the naked eye when viewed in normal room light against a black background.

**Scratches, Sleeks and Point defects according to MIL-PRF-13830B**

- Surface 1: 10/5
- Surface 2: 60/40

**Figure, measured over the central 95 mm diameter**

Surface 1 and 2: Nominally flat. PVr < 100 nm

**Error, High Spatial Frequency**

< 1 Å rms