**Step 1: Materials**

Low expansion glass is produced by Ohara Corporation of Japan and shipped to the Richard F. Caris Mirror Lab at the University of Arizona in Tucson.

**Step 2: Casting**

The furnace and the mold is constructed and filled with molten glass. An hexagonal core is placed in the furnace floor with战略合作 blocks. The core must be removed at the honeycombed shape used to make the mirror 50% lighter.

**Step 3: Rear Surface Processing**

The mirror is moved to the Large Optical Ground where the rear surface is first ground down, then polished. The edges of the mirror are also ground at this inspection of the mirror takes place.

**Step 4: Installing Load Spreaders**

Load spreaders are bonded to the rear surface of the mirror to distribute the load and provide permanent attachment points for the mirror to be mounted on the active support system.

**Step 5: Front Surface Processing**

The mirror is bolted into place and shipped to the Large Optical Grinding where the front surface is polished using a computer-controlled head loaded with a series of diamond grinding wheels.

**Step 6: Front Surface Polishing & Metrology**

The front surface of the mirror is polished in two stages on the Large Optical Grinding Machine. First, the mirror surface is ground to 2-3 micron overall shape. Then it is polished to its final figure. During the grinding and polishing stages the mirror surface is regularly measured using test tools using seven independent tools.

**Step 7: Final Mirror Acceptance**

The mirror surface is measured by the final set of tools and the polishing team makes comparisons with the planned mirror surface shape. If the Mirror passes all the tests, it is accepted by GMTO, and is coated in a protective layer ready for transport out of the Lab.

**Step 8: Package & Delivery**

The mirror is wrapped and shipped by its front surface into a transport container and the whole assembly is moved on the back of a transporter to its next destination.