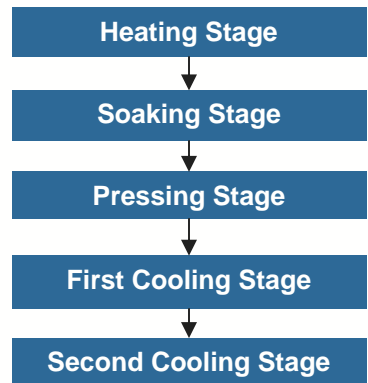
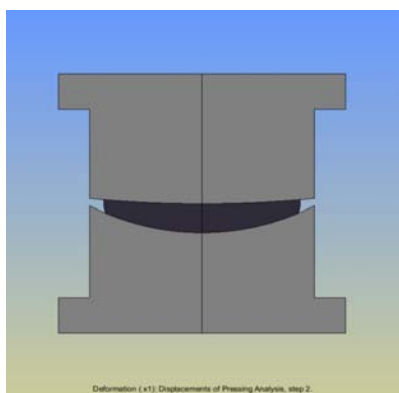


GPMSim is an FEA software package designed to predict the behavior of the molding process for glass optics. GPMSim's unique capabilities include a simplified user interface to create molds with various aspheric profiles and model the glass molding process. It also comes with an in-built materials library. The software automatically generates a quadrilateral mesh and computes the FE results by going through the five stages of the glass molding cycle. Some of the results are - profile analysis, coefficients of the molded lens profile, thermal shrinkage, molding deformation, residual stresses, index change etc.

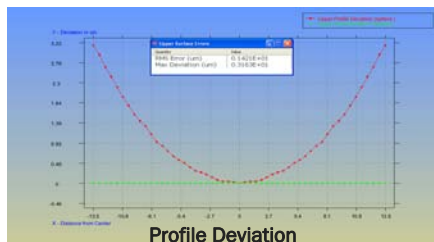
Glass Press Molding Cycle



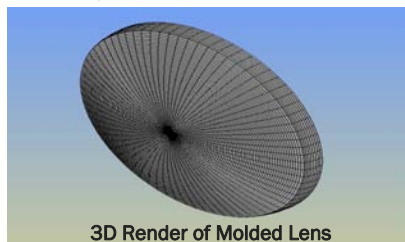
Mold and Glass Mesh Model (Deformed Lens)



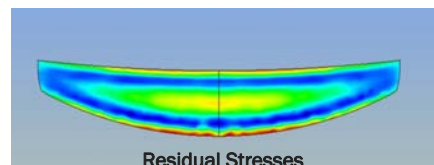
Results at the end of the Cycle



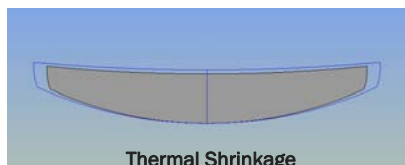
Profile Deviation



3D Render of Molded Lens

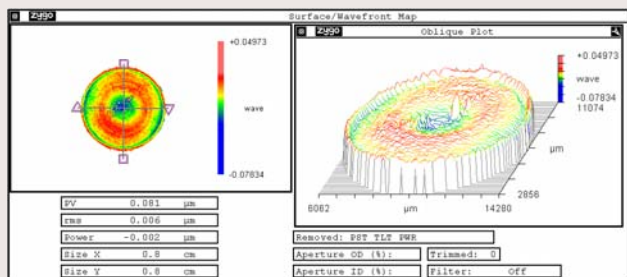


Residual Stresses

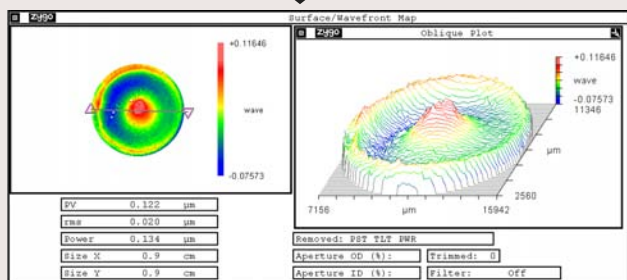


Thermal Shrinkage

Form Accuracy

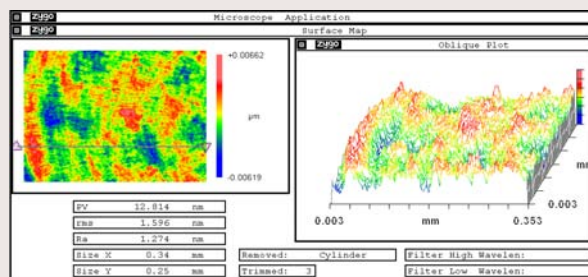


WC Mold 0.081 μ m PV

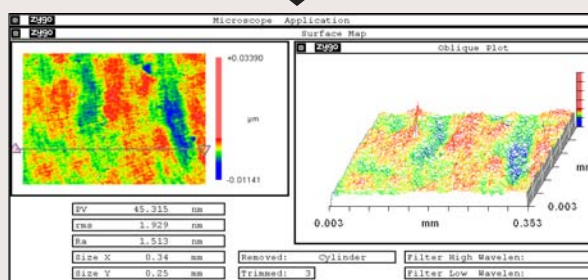


Molded Glass Lens 0.122 μ m PV

Surface Finish



WC Mold 1.27nm Ra



Molded Glass Lens 1.51nm Ra

Utility Requirements

Electrical	Machine Air	Nitrogen
Machine: 230 VAC; 50/60Hz; 3 Phase (50 amp) Chiller: <i>Domestic:</i> 208-230 VAC; 60Hz; 3 Phase (20 amp) <i>International:</i> 400/460 VAC; 50/60Hz; 3 Phase (20 amp)	5.5 bar (80 psi) 56 liters/min (2.5 scfm) Dry to 10°C pressure dew point and pre-filtered to 10 μ m	3.4 bar (50 psi) 227 liters/min (8 SCFM) 99.998% Pure Nitrogen containing less than 0.001% (10 parts per million) Oxygen

Note: In an effort to continually improve our product performance, specifications are subject to change without notice.