Optical Drawing Standards

ISO 10110 – More than just a cosmetic specification

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Prototype Optics In One Week

Standards are enabling more than restrictive

- Flexibility for the **Designer**
  - Standard specifies how to clearly communicate tolerances
    - Does not dictate tolerances
  - Reduces uncertainty by eliminating need for notes
- Easy Interpretation for **Fabricators**
  - Drawings look the same, information always in the same place
  - Fabricators know where to find information
  - Non-specified tolerances go to a default
- Reduces time and money lost due to miscommunication between the customer and vendor

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ISO 10110 – More than Scratch Dig

Part 1: General – Presentation of Characteristics and tolerances

Part 2: Material imperfections - Stress birefringence

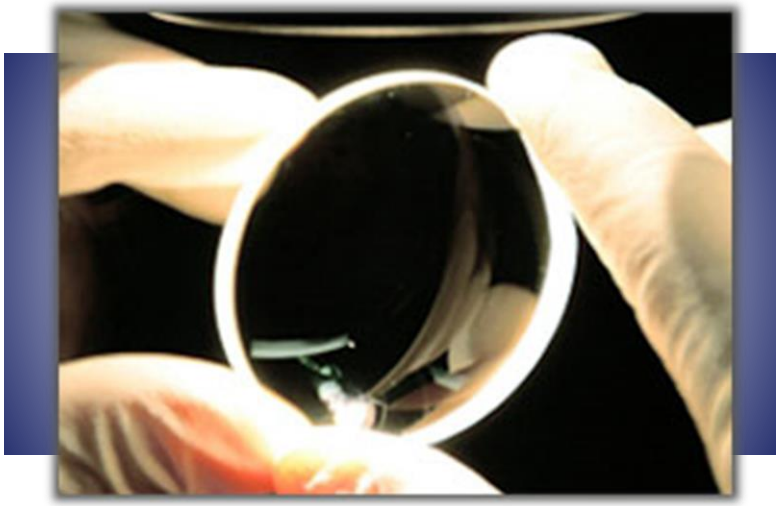
Part 3: Material imperfections - Bubbles and inclusions

Part 4: Material imperfections - Inhomogeneity and striae

Part 5: Surface form tolerances

Part 6: Centering tolerances

Part 7: Surface imperfection tolerances



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Part 8: Surface texture

Part 9: Surface treatment and coating

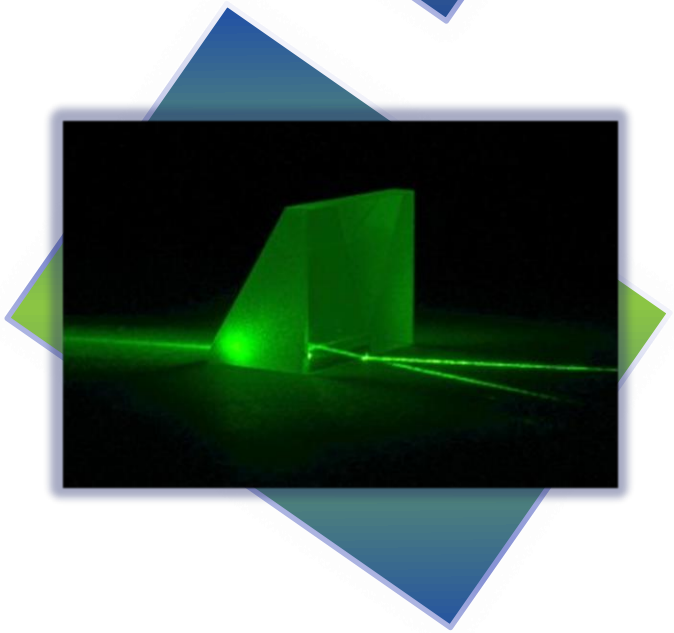
Part 10: Table representing data of optical elements and cemented assemblies

Part 11: Non-toleranced data

Part 12: Aspheric surfaces

Part 14: Wavefront deformation tolerance

Part 17: Laser irradiation damage threshold



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It's Time…

"Proper use of standards eliminates confusion, facilitate commerce and streamline design-to-fabrication efforts. As the optical design and engineering profession continues to evolve, standards development will continue to meet the needs of the ever-growing optical community." -R. Youngworth

R. Youngworth, S. Kiontke, D. Aikens, "Standards: a key element of optical design, engineering productivity and time to market", International Optical Design Conference 2014, Proc of SPIE-OSA, Vol 9293

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It’s time to adopt ISO-10110…

- APOMA is the critical organization that make the difference!
  - To insure success, we need your membership and participation.

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