



APEL™ Optical Performance as Lens Application

Advantages of APL5514ML for Image Sensor

Requirements

<Performance>

- Lower water absorption, Lower dispersion (Abbe No.= 56), good transmittance

<Quality Control>

- Lower black speck, Lower chips, consistency of quality in the same production lot

Higher Refraction

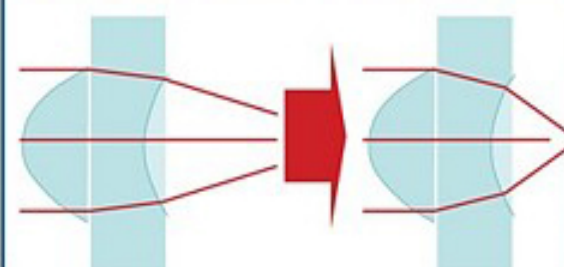
Higher refractive index ($n_D = 1.54$)

- APEL™ realizes lower profile design for optical applications
- APEL™ is able to reduce chromatic aberration by minimizing curvature.

Lower Birefringence

APEL™ improves definition by minimizing birefringence around gates due to its' lower stress-optical coefficient as well as dimensional change under harsh conditions.

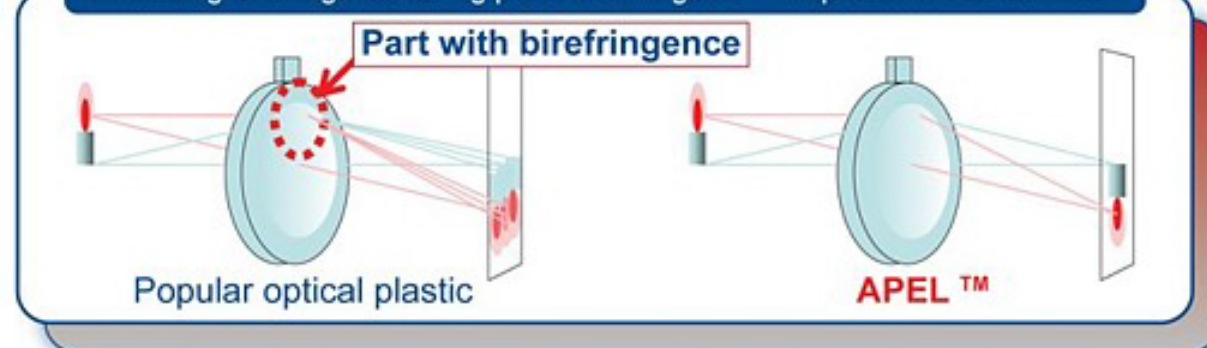
Enable to design lower profile



Minimize curvature of convex lens



Minimizing birefringence taking place around gates → Improvement of definition



Minimum impact by condition change → less change in performance under harsh condition

