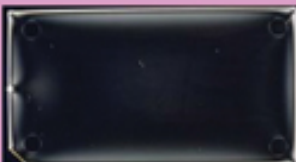
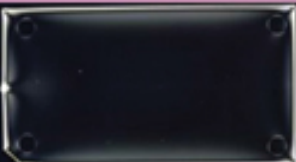

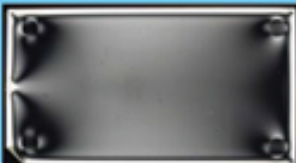



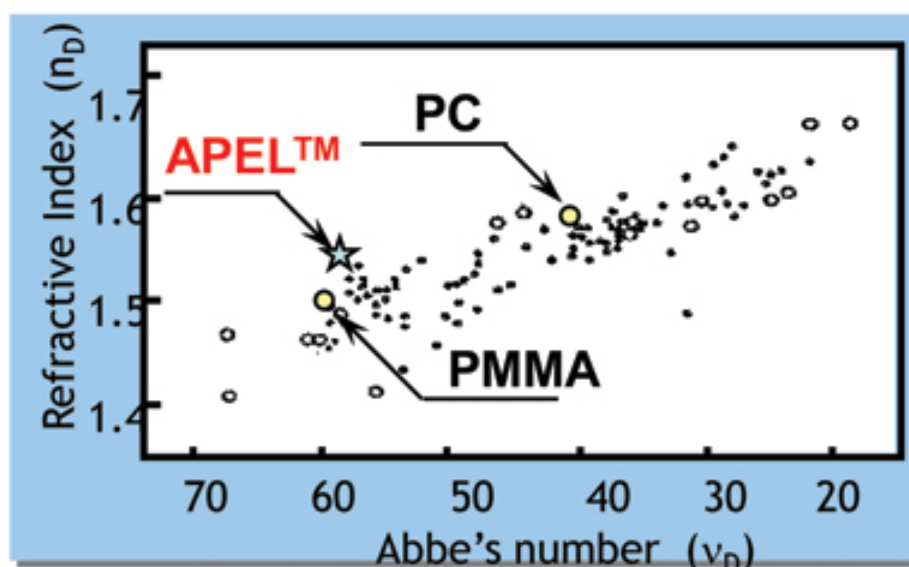
## Refractive index and birefringence

- **APEL™** has the lowest birefringence and highest refractive index among all cycloolefin based resins. Its optical balance is superior to other resins.

Grade	Refractive Index	Birefringence observed by 'Crossnicole'	
APEL™ APL5514ML	1.54		Low
APEL™ APL5014CL <i>New!</i>	1.54		Low
Another company Grade 1	1.53		High
Another company Grade 2	1.53		High
Another company Grade 3	1.53		High

## Refractive index and Abbe's number

- **APEL™** has the higher Abbe's number with higher refractive index.



\*Based on Y. Otsuka . *Kobunshi*, 1978, 27, 90