AsahiKASEI

AZP™

Transparent optical polymer for a glass-like appearance and freedom of design of lenses, lighting applications and optical surfaces.

General Description

AZP™ is a new transparent polymer that overcomes the disadvantages of conventional plastic materials traditionally used in displays. Featuring a close-to-zero birefringence equivalent to glass, as well as a superior designability this materials allows high transmission rates and low-color distortion at all viewing angles. This premium quality appearance is also maintained when looking at the display through polarized sunglasses. Clear images without whitish or blurring can be achieved in polarized optical equipment such as AR/VR headsets and HUD.

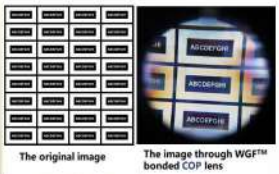
Material Properties

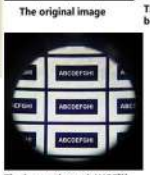
	AZP™	PMMA	COP (Cyclo Olefin Polymer)	PC (PolyCarbonate)
Lens birefringence Lens size: Φ41mm, 7.0mmt				
Low birefringence	✓	✗	✗	✗
Heat resistance	✓	✗	✓	✓
Scratch resistance	✓	✓	✗	✗

Application Fields

- Lenses, prisms, waveguides, PBSs of VR/AR head mounted displays
- Automotive head-up displays (HUD), information displays

Comparison of AZP™ and PC display covers

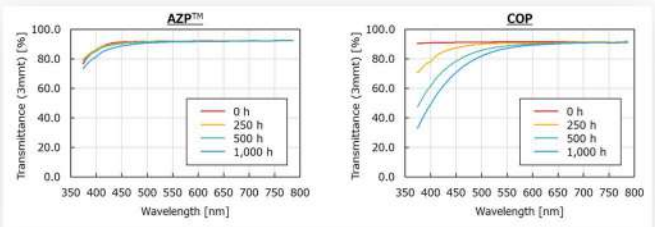




The images of pancake lens structure VR head mounted displays demo

Benefit For The Customer

- With AZP™, molding parts with extremely low birefringence can be obtained without requiring special molding methods, molding conditions, or post-molding processes.
- Having high resistance to light, AZP™ is expected to retain good optical characteristics even after prolonged exposure to sunlight or ultraviolet light.



Spectral transmittance change after accelerated weathering test

Creating for Tomorrow

Asahi Kasei Europe GmbH
Fringsstraße 17
40221 Düsseldorf
Germany

azp-biz@om.asahi-kasei.co.jp
Tel: +49 211 3399-2000
www.asahi-kasei.eu