



AZP™

Transparent Optical Polymer for a Glass-like Appearance & Freedom of Design of Lenses, Lighting Applications & Optical Surfaces

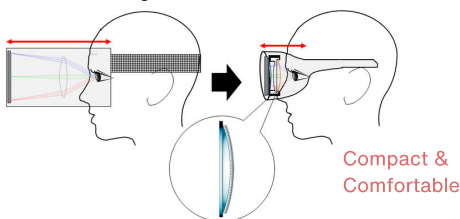
General Description

AZP™ is a transparent polymer that overcomes the disadvantages of conventional plastic materials. Featuring a close-to-zero birefringence equivalent to glass as well as a superior designability, this material allows high transmittance and low-color distortions at all viewing angles. Clear images without luminance variations, color distortion and blurring can be achieved in polarized optical equipment such as AR/VR headsets and HUDs. The premium quality appearance is also maintained when looking at the display through polarized sunglasses when used for display covers.

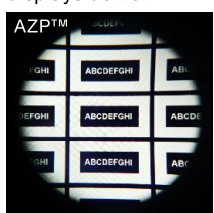
Application Fields

- Lenses, prisms, waveguides, PBSs of VR/AR head mounted displays, automotive head-up displays (HUD), inner lenses of headlamps, display covers

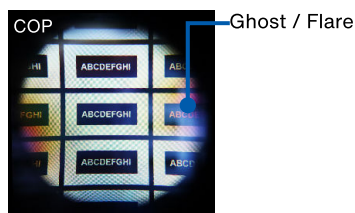
Conventional Configuration VR Pancake Lens Configuration VR



The images of pancake lens configuration VR head mounted displays demo.



The image through WGF™ bonded AZP™ lens



The image through WGF™ bonded COP lens

Material Properties

	AZP™	PMMA	COP (Cyclo Olefin Polymer)	PC (Polycarbonate)
Lens birefringence				
Lens size : Φ41mm, 7.0mmt				
Birefringence	✔ Almost zero birefringence	✘	✘	✘
Heat resistance	✔ Heat resistance : Tg 133 °C	✘	✔	✔
Scratch resistance	✔ Pencil hardness : 3H	✔	✘	✘

Benefit for Customers

- 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

