



SCHOTT RealView® 2.0 lightweight

Enabling the next generation of lightweight AR waveguides

As smart glasses move closer to everyday use, wearing comfort becomes a key success factor. SCHOTT RealView® 2.0 lightweight addresses this challenge through a unique combination of high refractive index and significantly reduced density compared to conventional high-index glass solutions. What makes SCHOTT RealView® 2.0 lightweight unique is that it brings together high refractive index, low density, excellent optical transmission, and outstanding mechanical robustness in a single material platform, a combination that has traditionally been difficult to achieve.

Developed specifically for Augmented Reality applications, SCHOTT RealView® 2.0 lightweight combines exceptional material quality with industrial manufacturing readiness. The result is a material that enables larger fields of view, lighter waveguides, brighter visual experiences, and excellent all-day wearing comfort without compromising mechanical robustness.

How does SCHOTT RealView® 2.0 lightweight contribute to the next generation of AR devices?

- Enables larger field-of-view (FoV) waveguide designs through its high refractive index.
- Enables brighter AR experiences through high optical transmittance.
- Reduces waveguide weight through significantly lower density compared with conventional high-index glass solutions.
- Supports comfortable all-day wearability without compromising durability.
- Delivers an optimized balance of high refractive index, low density, optical transmittance, and mechanical robustness.

What are additional advantages?

- Enhanced hardness and fracture toughness help reduce crack propagation and improve product durability.
- Exceptionally low brittleness helps limit fragmentation and supports reliable wafer processing.
- High mechanical robustness supports processing yield and long-term product reliability.
- Available in SCHOTT's proven ultra-flat wafer grade, enabling advanced thinner waveguide concepts.
- Available in round wafer formats up to 300 mm and large-format panels up to 310 mm x 310 mm.
- Built on SCHOTT's proven AR mass-production platform with more than 500,000 wafers shipped globally.

Key data

Refractive index (n_d)	1.988
Density	3.99 g/cm ³
Optical transmission	> 96 % @ 460 nm / 10 mm optical path
Mechanical robustness	Enhanced hardness & fracture toughness
Wafer formats	Up to 300 mm round, 310 mm square



SCHOTT RealView® 2.0 lightweight – engineered for superior strength, helping to resist deformation, crack propagation, and fragmentation.