

NEW!

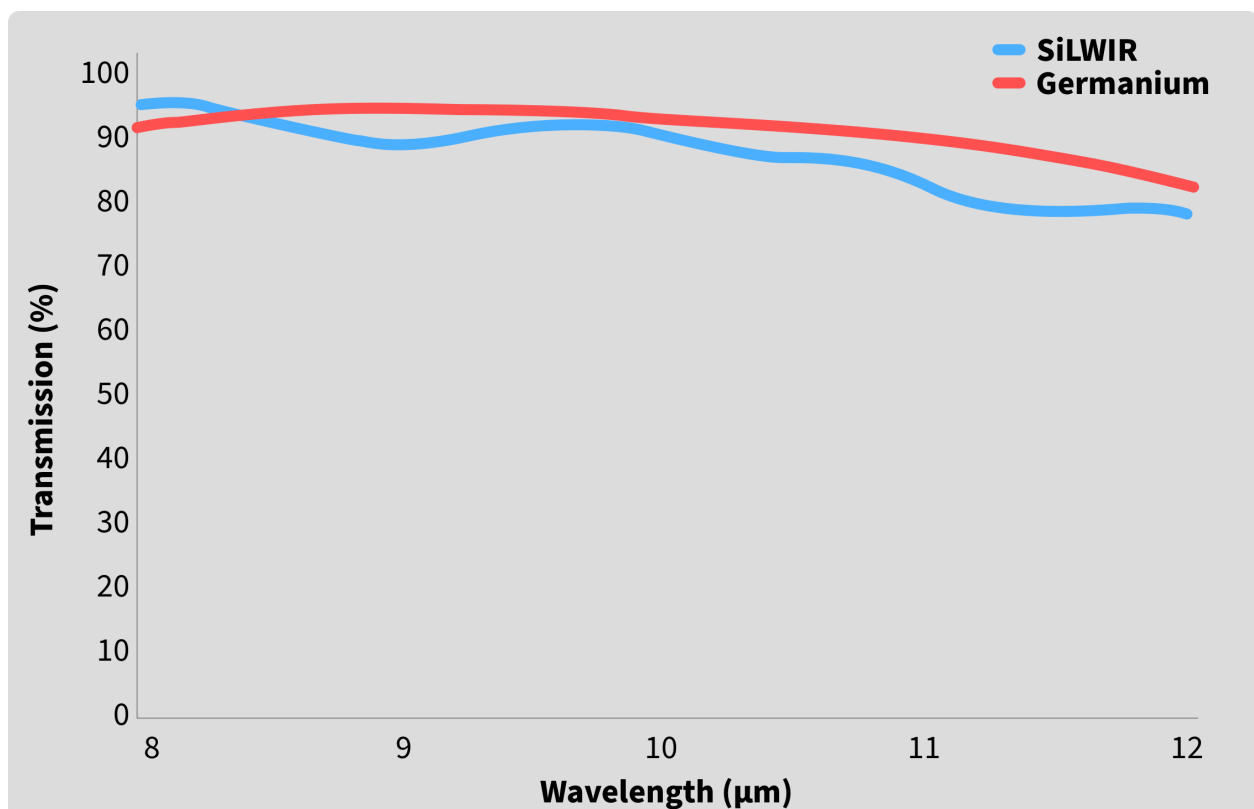
SiLWIR™

**SILICON PROTECTIVE WINDOWS
FOR THERMAL IMAGING**



2X THE STRENGTH OF GERMANIUM

When pure-grade silicon is used in combination with the proper coatings, its optical, mechanical and thermal properties make it an excellent alternative to germanium and chalcogenide glasses for LWIR (long-wave infrared, 8-12 μ m) Protective Windows – offering the ideal balance of performance, cost and reliability.



SiLWIR™ SPECIFICATIONS

- More than 2x the strength of germanium
- Cost-effective and readily available

- Specifically designed for thermal LWIR applications (8-12 μ m)
- Diamond-like carbon (DLC) coated, double-side anti-reflection (AR) coated
- A peak transmission of >80%
- Safe in high-temperature applications ~200° C
- 1150 Knoop Hardness – strong and durable
- Meets MIL-F-48616 and MIL-C-48497C standards
- Available in sizes up to 8" in diameter
- Available with VHB adhesive

SPECIALIZED COATINGS

SiLWIR™ pure-grade silicon Protective Windows with the proper coatings can effectively transmit LWIR light with minimal absorption.



Diamond-Like Carbon (DLC) Coatings offer excellent durability, scratch resistance and optical performance, making it ideal for harsh environments where durability is crucial.



Anti-Reflection (AR) Coatings reduce surface reflections, ensuring more light passes through the filter and into the sensor. This enhances transmission and improves image clarity and sensor efficiency.



SUPERIOR DURABILITY

SiLWIR™ offers twice the breakage resistance of germanium – proven in dropball tests. Its exceptional durability, hardness and strength allow it to be highly resistant to cracking and physical wear, making it ideal for many industrial applications.

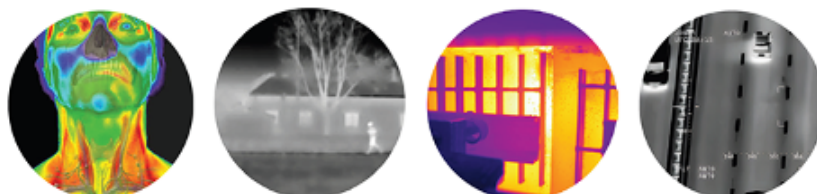


THERMAL STABILITY

Protective Windows need to withstand vibration, impact and extreme temperatures. SiLWIR™ has excellent thermal conductivity, which helps dissipate heat efficiently – important for preventing overheating of the system's internal components.

APPLICATIONS

Thermography • Military (DOD) • Furnace Inspection • Night Vision / Surveillance • Mine Detection • Medical Imaging • Industrial Process Control • Firefighting



Since silicon has been widely used in the electronics industry for decades, its manufacturing processes are highly refined and reliable. **We offer short lead times on all SiLWIR™ Protective Windows.**



Vision Light Tech

creating optical solutions

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