

Prevent display overheating with Sapphire™ anti-reflective glass

In electronic displays, overheating is a significant concern. Near-infrared (NIR) light belongs to the electromagnetic spectrum and consists of heat-producing wavelengths. Traditional NIR-blocking solutions absorb the majority of incoming NIR radiation, transforming it into heat and transferring it to the display screens.

Groglass presents a different solution to combat display overheating – the combination of anti-reflective and NIR-blocking coatings that reflect more than 50% of NIR radiation instead of absorbing it.

Groglass advanced NIR-reflecting solution

Anti-reflective low-iron glass	
NIR-reflecting coating & PVB	
Anti-reflective low-iron glass	
 Visible light transmission	85%
 Visible light reflection	2%
 NIR light transmission	24%
 NIR light reflection	45%
 NIR light transformed to heat	31%



Standard NIR-absorbing solution

Regular glass	
NIR-absorbing film	
Regular glass	
Visible light transmission	73%
Visible light reflection	6.8%
NIR light transmission	17.1%
NIR light reflection	4.2%
NIR light transformed to heat	79%

Groglass NIR-reflecting glass for electronic displays

Sapphire™ AR NIR-reflecting solution significantly improves the visibility of displays, as well as assists in thermo-regulation. The majority of NIR light is reflected back instead of being absorbed by glass, reducing the need of display cooling.

Anti-reflective coating

Glass

NIR-reflecting layers

PVB lamination film

Glass

Anti-reflective coating



IMPROVED TRANSPARENCY

Groglass AR solution minimizes visible light reflections to ~1% per side, reduces the required display brightness, and improves transmission in the visible light range.



REDUCED HEAT TRANSFER

The heat buildup is reduced by ~50%, enhancing the thermoregulation and prolonging the lifespan of electronic displays.



COST SAVING

Groglass NIR-reflecting AR solution reduces the energy consumption of cooling systems and eliminates the need of expensive NIR-blocking lamination films.

CONTACT US

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Sapphire™ NIR-reflecting AR glass is available in various thicknesses and sizes, and our solutions can be tailored to meet the specific requirements of your displays.