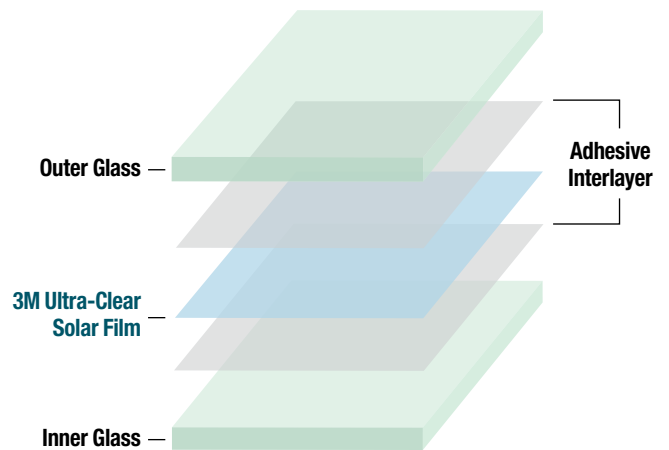


NEW Ultra-Clear Solar Film
for Laminated Glass

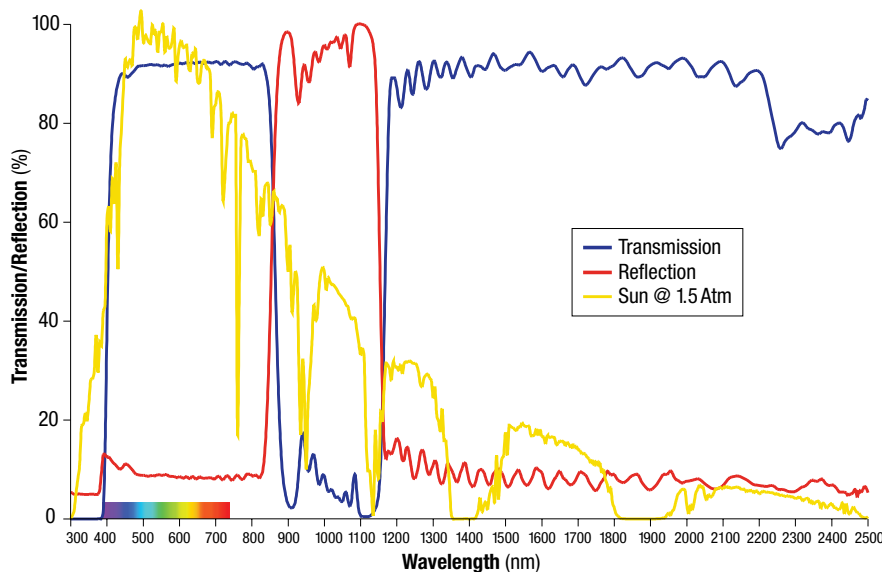
Solar heat reduction with minimal effect on visible light

3M™ Ultra-Clear Solar Film maintains high visible light transmission while blocking Infrared heat in laminated glass. This nonmetallic film is neutral in color and easily processed.

- Reduces solar radiation by up to 34% with minimal reduction of visible light
- Multilayer film selectively blocks infrared light, thus reducing heat
- Neutral in color, low reflectivity, low absorption
- No cutback or edge deletion required
- Compatible with other glass technologies (e.g. coatings, tinted glass)
- Corrosion free, nonmetallic technology
- No interference with radio frequencies
- Ability to bend the glass
- Compatible with PVB, EVA, or SentryGlas® Interlayer



Reflection Versus Wavelength: Film Only

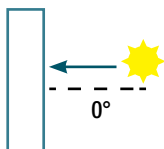


0° Incidence
Reflects 25-27% of solar radiation

60° Incidence
Reflects 32-34% of solar radiation

Solar Performance of Low Iron Laminated Glass: At 0° From Nominal

6.3 mm low iron glass/0.38 mm PVB/UCSF/0.38 mm PVB/6.3 mm low iron glass

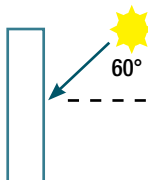


	Reflection Visible	Transmission Visible	Transmitted Energy	Reflected Energy	Absorbed Energy	TSER	SHGC
Low Iron Glass Laminates	8.1%	89.0%	82.7%	7.4%	9.8%	14.7%	0.85
Low Iron Glass Laminates With 3M Film	9.1%	87.6%	67.4%	22.3%	10.3%	29.9%	0.70

Improvement in SHGC = 18%

Solar Performance of Low Iron Laminated Glass: At 60° From Nominal

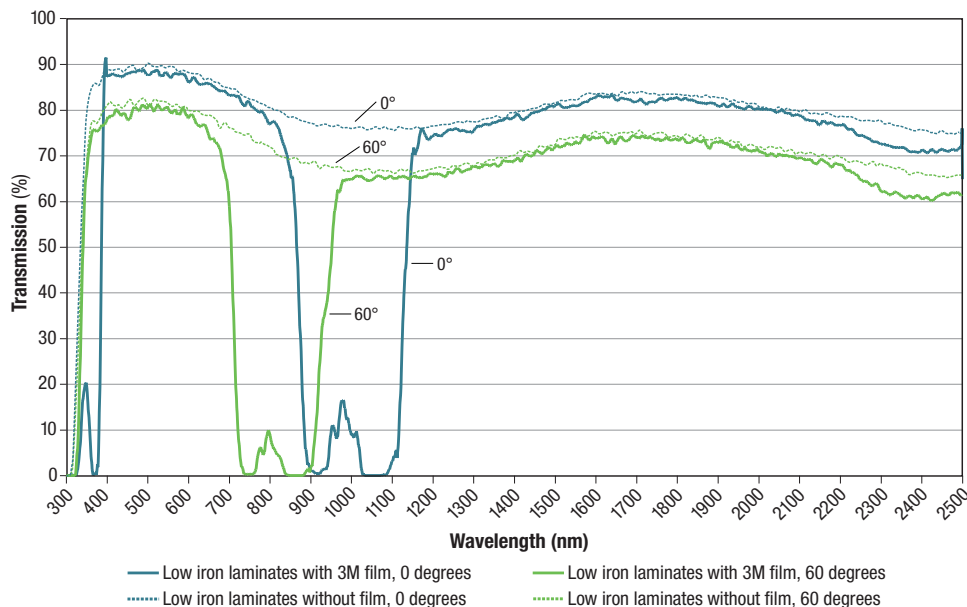
6.3 mm low iron glass/0.38 mm PVB/UCSF/0.38 mm PVB/6.3 mm low iron glass



	Reflection (Visible)	Transmission (Visible)	Transmitted (Energy)	Reflected (Energy)	Absorbed (Energy)	TSER	SHGC
Low Iron Glass Laminates	15.4%	81.1%	74.2%	14.2%	11.1%	22.8%	0.77
Low Iron Glass Laminates With 3M Film	16.4%	79.6%	56.6%	31.3%	12.2%	40.3%	0.60

Improvement in SHGC = 23%

Transmission Data on Low Iron Laminated Glass



For more information visit:

www.3M.com/glass

Information for additional interlayers and glass combinations available upon request.

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