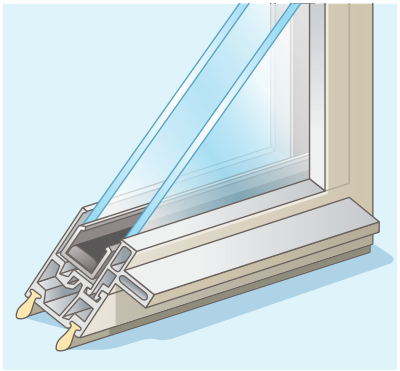
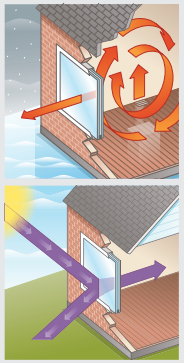
PPG Glass Technology Since 1883

PPG Residential 3/4" (19mm) Insulating Glass Unit Performance Using 1/8" (3mm) Glass[1*]

3/4" (19mm) Insulating Glass Unit Performance Using 1/8" (3mm) Glass - Based on LBNL Window 6.3 Simulations[1]												
Glass Type	Transmittance (%)[2]			Reflectance (%)[2]		With Air Fill U-Value (Imperial)[3]		U-Value (Imperial)[3]		Shading Coeffi-cient[2,4]	Solar Heat Gain Coeffi-cient[5]	Light To Solar Gain (LSG)[6]
	Ultraviolet	Visible	Total Solar	Visible	Total Solar	Winter	Summer	Winter	Summer			
Uncoated - with 1/8" (3mm) Glass and 1/2" (12mm) Argon Fill Outdoor Lite as Shown, Indoor Lite as Shown												
Clear / Clear	59	81	69	16	13	0.48	0.50	0.45	0.48	0.87	0.76	1.07
SOLARGRAY® / Clear	32	54	49	10	9	0.48	0.50	0.45	0.48	0.66	0.58	0.93
STARPHIRE® / *STARPHIRE*®	80	84	82	15	14	0.48	0.50	0.45	0.48	0.96	0.83	1.01
Coated - with 1/8" (3mm) Glass and 1/2" (12mm) Argon Fill Outdoor Lite / Indoor Lite as Shown												
***SUNGATE*® 400 Coated Glass**												
SUNGATE® 400 (2) Clear / Clear	32	78	57	14	18	0.32	0.31	0.28	0.26	0.73	0.63	1.24
Clear / *SUNGATE*® 400 (3) Clear	32	78	57	14	19	0.32	0.31	0.28	0.26	0.78	0.68	1.15
***SOLARBAN*® 60 Coated Glass**												
SOLARBAN® 60 (2) Clear / Clear	20	72	36	11	34	0.29	0.27	0.25	0.22	0.46	0.40	1.80
SOLARBAN® 60 (2) *STARPHIRE*® / *STARPHIRE*®	25	75	40	11	41	0.29	0.27	0.25	0.22	0.47	0.41	1.83
SOLARBAN® 60 (2) Gray / Clear	12	49	25	7	19	0.29	0.27	0.25	0.22	0.34	0.30	1.63
SOLARBRONZE® / *SOLARBAN*® 60 (3) Clear	12	54	27	9	24	0.29	0.27	0.25	0.22	0.44	0.38	1.42
***SOLARBAN*® 67 Coated Glass**												
SOLARBAN® 67 (2) Clear / Clear	13	55	26	19	41	0.29	0.27	0.25	0.22	0.33	0.29	1.90
***SOLARBAN*® 70XL Coated Glass**												
SOLARBAN® 70XL (2) Clear / Clear	6	63	24	12	43	0.29	0.27	0.24	0.21	0.31	0.27	2.33
SSOLARGRAY® / *SOLARBAN*® 70XL (3) Clear	3	43	17	9	25	0.29	0.27	0.24	0.21	0.32	0.28	1.54
SOLARBRONZE® / *SOLARBAN*® 70XL (3) Clear	4	48	18	9	30	0.29	0.27	0.24	0.21	0.35	0.30	1.60





PPG Low-E glass allows natural light to enter freely. In winter, indoor heat energy is reflected back into the home. In summer, outdoor heat energy is reflected back outside.

SUNGATE® 400 Low-E Glass

intercept® SPACER SYSTEM

SOLARBAN® 70XL Solar Control Low-E Glass

SOLARBAN® 60 Solar Control Low-E Glass

SOLARBAN® 67 Solar Control Low-E Glass

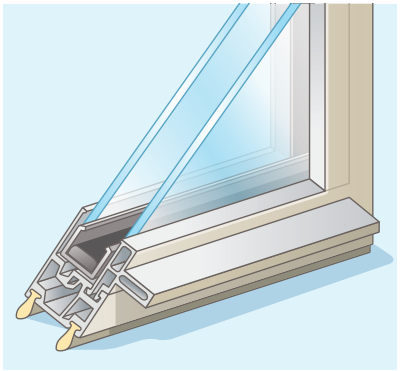
PPG Industries, Inc. • Glass Business & Discovery Center • 400 Guys Run Road • Cheswick, PA 15024

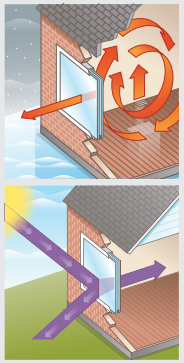
PPG Glass Technology Since 1883

PPG Residential 3/4" (19mm) Insulating Glass Unit Performance Using 3/32" (2.5mm) Glass[1*]

3/4" (19mm) Insulating Glass Unit Performance Using 3/32" (2.5mm) Glass - Based on LBNL Window 6.3 Simulations[1]												
Glass Type	Transmittance (%)[2]			Reflectance (%)[2]		With Air Fill U-Value (Imperial)[3]		U-Value (Imperial)[3]		Shading Coeffi-cient[2,4]	Solar Heat Gain Coeffi-cient[5]	Light To Solar Gain (LSG)[6]
	Ultraviolet	Visible	Total Solar	Visible	Total Solar	Winter	Summer	Winter	Summer			
Uncoated - with 3/32" (2.5mm) Glass and 9/16" (14mm) Argon Fill Outdoor Lite as Shown, Indoor Lite Clear												
Clear	63	82	74	16	14	0.48	0.50	0.46	0.48	0.90	0.78	1.05
Coated - with 3/32" (2.5mm) Glass and 9/16" (14mm) Argon Fill Outdoor Lite / Indoor Lite as Shown												
***SUNGATE*® 400 Coated Glass**												
SUNGATE® 400 (2) Clear / Clear	34	79	61	14	19	0.33	0.30	0.28	0.25	0.75	0.65	1.22
Clear / *SUNGATE*® 400 (3) Clear	34	79	61	14	21	0.33	0.30	0.28	0.25	0.80	0.70	1.13
***SOLARBAN*® 60 Coated Glass**												
SOLARBAN® 60 (2) Clear / Clear	22	73	37	11	37	0.30	0.26	0.25	0.20	0.46	0.40	1.83
***SOLARBAN*® 67 Coated Glass**												
SOLARBAN® 67 (2) Clear / Clear	14	56	27	20	44	0.30	0.26	0.25	0.20	0.33	0.29	1.93
***SOLARBAN*® 70XL Coated Glass**												
SOLARBAN® 70XL (2) Clear / Clear	6	65	25	12	47	0.29	0.25	0.25	0.19	0.31	0.27	2.41

1. **Figures may vary due to manufacturing tolerances. All tabulated data is based on NFRC methodology using the LBNL Window 6.3 software.**
2. Transmittance and reflectance values based on spectrophotometric measurements and energy distribution of solar radiation.
3. **U-value** is the overall coefficient of heat transmittance or heat flow measured in BTU/hr. • ft² • °F (watts/m²•°C). Lower U-values indicate better insulating performance.
4. **Shading coefficient** is the ratio of the total amount of solar energy that passes through a glass relative to 1/8-in. (3.0mm) thick clear glass under the same design conditions. It includes both solar energy transmitted directly plus any absorbed solar energy re-radiated and convected. Lower shading coefficient values indicate better performance in reducing solar heat gain.
5. **Solar heat gain coefficient (SHGC)** represents the solar heat gain through the glass relative to the incident solar radiation. It is equal to 86% of the shading coefficient.
6. **Light to Solar Gain ratio (LSG)** is the ratio of visible light transmittance to solar heat gain coefficient.





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