Product Name	% Total Solar Energy			% Visible Light			U Value	Emissivity	% UV Rejection	% Glare Reduction	Luminous Efficacy	Shading Coefficient	SHGC	% Infrared Rejection*	% Total Solar Energy Rejection
	Trans	Reflect (Ext)	Absorb	Trans	Reflect (Ext)	Reflect (Int)									
Designer Series															
Designer Grey 35	31.0	20.0	49.0	38.0	17.0	24.0	1.00	0.76	99.0	57.0	0.73	0.52	0.44	72.0	56.0
Designer Grey 45	40.0	16.0	44.0	47.0	13.0	16.0	1.03	0.82	99.0	47.0	0.77	0.61	0.53	60.0	48.0
Designer Grey 55	52.0	10.0	38.0	57.0	9.0	9.0	1.07	0.90	99.0	35.0	0.78	0.73	0.63	47.0	37.0
Softlite Series															
Softlite 25	16.0	37.0	47.0	24.0	29.0	34.0	1.02	0.81	99.0	73.0	0.68	0.35	0.30	87.0	71.0
Softlite 35	23.0	33.0	44.0	33.0	23.0	26.0	0.94	0.72	99.0	63.0	0.82	0.40	0.35	81.0	65.0
Starlite Series															
Starlite 8	6.0	53.0	41.0	8.0	58.0	26.0	1.04	0.88	99.0	91.0	0.37	0.21	0.18	96.0	82.0
Starlite 18	17.0	34.0	49.0	18.0	36.0	13.0	1.00	0.84	99.0	80.0	0.50	0.36	0.31	86.0	69.0
Starlite 28	23.0	30.0	47.0	30.0	29.0	17.0	1.05	0.86	99.0	66.0	0.69	0.43	0.37	80.0	63.0
Starlite 38	35.0	18.0	47.0	43.0	17.0	11.0	1.07	0.89	99.0	52.0	0.74	0.57	0.49	68.0	51.0
Advanced Ceramic Series															
Advanced Ceramic 3000	27.0	20.0	53.0	38.0	16.0	15.0	1.07	0.90	99.0	57.0	0.76	0.50	0.43	79.0	57.0
Advanced Ceramic 4000	34.0	16.0	49.0	47.0	13.0	11.0	1.08	0.91	99.0	47.0	0.81	0.57	0.49	73.0	51.0
Advanced Ceramic 5000	41.0	14.0	45.0	54.0	12.0	10.0	1.08	0.92	99.0	38.0	0.85	0.64	0.55	64.0	45.0
Advanced Ceramic 6000	51.0	11.0	38.0	63.0	10.0	9.0	1.09	0.93	99.0	29.0	0.87	0.72	0.62	52.0	38.0
Purelite Series															
Purelite 60	40.0	12.0	48.0	57.0	12.0	13.0	1.02	0.84	99.0	37.0	0.90	0.63	0.54	77.0	45.0
Safety Solar Series															
Designer Grey 35 4Mil	31.0	18.0	51.0	36.0	15.0	22.0	1.00	0.76	99.0	59.0	0.68	0.53	0.45	71.0	55.0
Designer Grey 35 8Mil	32.0	19.0	49.0	38.0	16.0	24.0	1.00	0.76	99.0	57.0	0.71	0.53	0.46	70.0	54.0
Designer Grey 45 8Mil	37.0	15.0	48.0	43.0	14.0	16.0	0.92	0.82	99.0	51.0	0.73	0.59	0.86	69.0	49.0

Read in accordance with National Fenestration Rating Council (NFRC) standards on 3mm. (1/8") clear glass.

* IR Rejection is tested in the IR range of 700 to 2400 nanometers.

Reported values are typical properties and should not be used as a specification. Since only the user is aware of the specific conditions in which the product is to be used, it is the user's responsibility to determine whether the product is suitable for that intended use. If the specific conditions of use are critically dependent on any of the properties of the product, or if you need further information, contact Madico or your local Madico Window Film dealer.

BY MADICO

Solar Optical Properties Glossary

Total Solar Energy: all the energy in the solar spectrum that reaches us on the earth's surface. This includes UVA and B, Visible light, and Infrared energy up to roughly 2500nm.

> **Transmitted:** the amount of total solar energy that passes through the glass, into the building.

> **Reflected:** the amount of total solar energy that is reflected off of the glass and directed back outside. This energy does not come into the building.

> **Absorbed:** the amount of total solar energy that is absorbed in the glass. This heats up the glass, making it hotter to the touch, and reradiates a small amount of heat back into the room. The majority of absorbed energy is kept out of the room though.

Visible Light: the portion of the solar spectrum containing visible light we can see, from roughly 380nm up to 770nm, contains all the colors of the spectrum.

> **Transmitted:** the amount of visible light that passes through the glass, into the building. This is how light or dark the film is.

> **Reflected Interior:** the amount of visible light that is reflected off the interior surface of the window. This is seen when standing inside the building looking out, and a higher reflectance value means the window looks more like a mirror from the inside.

> **Reflected Exterior:** the amount of visible light that is reflected off the exterior surface of the window. This is seen when standing outside the building, and a higher reflectance value means the window looks more like a mirror from the outside.

U Factor (winter): heat transfer due to temperature differences outside and inside. Represents the amount of heat passing through 1 sq ft of glass in 1 hour for every 1 degree temperature difference between the outside and inside. A lower value means less heat passes through, and this is generally of interest for keeping heat inside the building in cold climates.

Emissivity: the ability of the surface to reflect infrared energy. For window film, this means how much heat it will reradiate back into a room. Low E glass and films have low emissivities, which means they reflect a lot of heat back into the room, which is the desired effect in cold climates.

Ultraviolet Light Rejected: the amount of UV energy blocked by the film, either by reflecting or absorbing it. This energy does not enter the building.

Glare Reduction: the reduction in visible light transmitted compared to clear unfilmed glass.

Luminous Efficacy: the ratio of visible light transmission to solar heat transmission for a window. A higher luminous efficacy means the film has high heat rejection given its VLT.

Shading Coefficient: the ratio of heat passing through a filmed window to heat passing through clear unfilmed glass. A lower number means better heat rejection.

Solar Heat Gain Coefficient: similar to the shading coefficient, except this value also takes into account energy that is reradiated back into the room from the glass heating up due to increased absorption. Again, a lower number means better heat rejection.

Infrared Rejection: the amount of infrared (IR) energy that is blocked by the film, either by reflecting or absorbing. This value is for the whole IR region of the solar spectrum, roughly 700nm up to 2500nm.

Total Solar Energy Rejected: the total amount of solar energy that is kept out of the building. Although not accurate, this is commonly referred to as heat rejection.