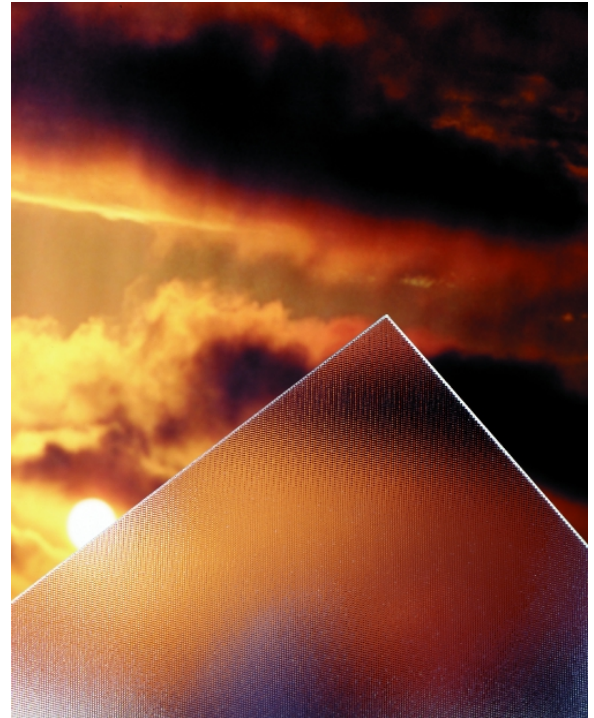




AFG Industries, the world's leading producer of solar glass, has been supplying solar glass products since 1972. AFG is dedicated to producing quality solar glass products suitable for photovoltaic, commercial greenhouse glazing, and active or passive applications. AFG solar glass products are affordable, durable and virtually maintenance free.

Solar glass products from AFG are ultra-clear, non-flammable and fully temperable. The material composition and low-iron content of AFG solar glass provides a near colorless product which allows for superior light and energy transmission rates.

AFG's Solite solar glass is a low-iron, rolled product formed with a stippled pattern on one surface. The stipple effect provides the desired obscurity while retaining high transmission values. Solite is the product of choice for most active applications where obscurity of the absorber plate in active solar panels is an important factor.



Common Physical Properties of AFG Tempered Solar Glass

Maximum Sizes				PAR	Approx. Net Wt.	Approx. Solar Energy Transmitted
Nominal Thickness	Width	Length	Area Sq. Ft.			
1/8"	48"	120"	42	91.8%	1.6	91.0%*
5/32"	48"	120"	42	91.7%	2.0	90.7%
3/16"	48"	120"	42	91.6%	2.4	90.4%

*ASTM E 424 - 71 (Reapproved 1993)

Mechanical Properties*

Hardness: Moh's Scale (Scratch hardness) (Diamond = 10, Sapphire = 9, etc.) Knoop Hardness Number (indentation hardness) indenter load - 500 grams	~6 470
Poisson's Ratio	0.22
Density	156 lb/cf 2.5 g/cc
(Young's) Modulus of Elasticity	10,600,000 psi 73.1 GPa
Tensile Strength (determined as Modulus of Rupture, ultimate)	6000 lb/in2 41.4 MPa
Specific Gravity at 70°F (21°C)	2.5
Approximate Weight	
Per Square Foot	Per Square Meter
1/8 = 1.7 lbs 5/32 = 2.0 lbs 3/16 = 2.4 lbs	3.3 mm = 7.8 kg 4 mm = 9.7 kg 5 mm = 11.7 kg



S O L I T E

Thermal Properties*

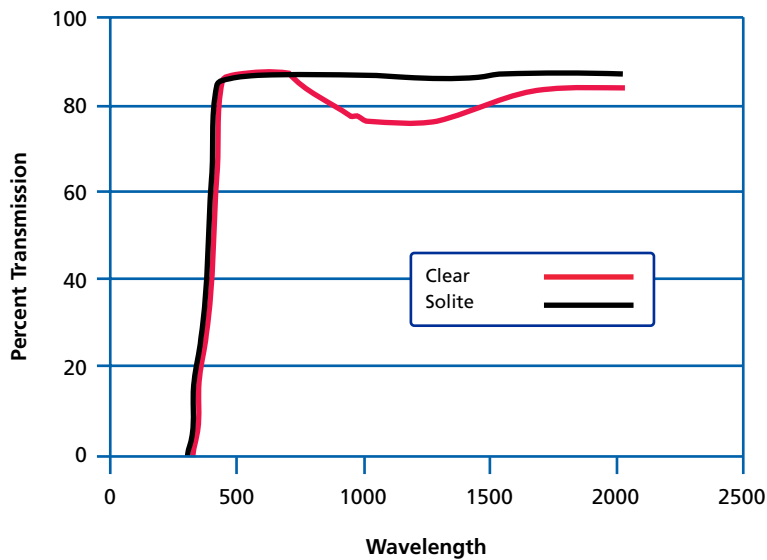
Hemispherical Emissivity at 0°-150° (-18° - 66°C)	0.84
Expansion Coefficient (Linear in the range of 25°C to 300°C)	per °C = 9.03×10^{-6} per °F = 5.02×10^{-6}
Specific Heat at 32° - 212°F (0° - 100°C)	0.2
Calculated Thermal Conductivity at 20°C in (watt/m ² /K)	1.04
Softening Point	1332°F 722°C
Annealing Point	1025°F 552°C
Strain Point	932°F 500°C

Chemical Properties

Approximate Chemical Composition:	
Silicon Dioxide	73%
Sodium Oxide	14%
Calcium Oxide	8.7%
Magnesium Oxide	3.9%
Trace Elements	0.4%

* Mechanical, Thermal and Chemical properties applicable to test samples under specific testing conditions.

Spectral Data



Spectral Data 3MM

Wave Length	Clear	Solite
300	2.90	2.63
310	1.06	3.16
320	11.67	4.73
330	37.03	14.27
340	62.5	40.75
350	78.74	68.75
360	85.17	81.39
370	87.27	86.45
380	86.74	88.86
390	88.64	90.13
410	89.77	91.02
430	89.40	91.25
450	89.70	91.48
470	90.41	91.51
490	90.16	91.56
510	90.79	91.63
530	90.58	91.68
550	90.40	91.71
570	90.04	91.73
590	89.75	91.73
610	89.33	91.75
630	88.87	91.80
650	88.17	91.84
670	86.77	91.77
690	86.32	91.78
710	85.56	91.67
730	84.84	91.71
750	83.94	91.58
770	83.06	91.45
800	81.69	90.42
850	80.67	91.73
900	79.57	91.59
950	78.90	91.34
1000	78.22	91.32
1050	77.84	91.14
1100	77.90	91.28
1150	78.16	91.27
1200	78.49	91.17
1250	78.71	91.30
1300	79.62	91.32
1350	80.14	91.24
1400	81.11	91.77
1450	82.48	91.56
1500	83.49	91.82
1550	84.44	91.63
1600	85.01	91.60
1650	85.55	91.70
1700	85.53	91.75
1750	85.64	91.69
1800	85.39	91.73
1850	85.37	91.75
1900	84.87	91.65
1950	85.04	91.63



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