



Performance Results

	CLEAR	Grey Steel 50	Grey Steel 35	Grey Steel 20	Chrome 20
Solar Transmittance	77	37	32	21	12
Solar Absorptance	14	50	53	57	38
Solar Reflectance	9	13	15	22	50
Visible Light Transmission	89	45	35	20	16
Visible Light Absorptance	2	43	47	51	27
Visible Light Reflectance (Exterior)	9	12	18	29	57
Visible Light Reflectance (Interior)	9	11	12	26	60
Emmissivity	0.91	0.86	0.88	0.84	0.69
U-Value (Summer)	1.06	1.12	1.13	1.14	1.02
U-Value (Winter)	1.12	1.14	1.14	1.11	1.05
Shading Coefficient	0.94	0.64	0.56	0.41	0.26
Solar Heat Gain Coefficient	0.83	0.53	0.46	0.38	0.19
UV Transmittance (300-350 Nanos)%	<2	<2	<2	<2	<2
Total Solar Energy Rejected	18	49	52	65	79

Notes: This test data contains results arrived at only after employing specific test procedures and standards. The included data does not constitute a recommendation for, endorsement of, or certification of the product or material tested. This data is provided for informational purposes only. ShatterGARD Safety & Security Window Films, Inc. makes no representation or warranty, expressed or implied, including the implied warranties of merchantability or fitness for a particular purpose, that its products will conform to these test data. Extrapolation of data from the sample or samples relating to the batch or lot from which data were obtained may not correlate and should be interpreted accordingly with caution. ShatterGARD shall not be responsible for variations in quality, composition, appearance, performance, or other feature of similar subject matter produced by persons or under conditions over which ShatterGARD has no control. Performance results were generated from testing 1/8" (3mm) thick clear glass and are subject to variations within industry standards.





Physical and Thermal Properties

	CLEAR	Grey Steel 50	Grey Steel 35	Grey Steel 20	Chrome 20
Tensile Strength ASTM D 882 (PSI)	30,000	30,000	30,000	30,000	30,000
Elongation At Break ASTM D 882 (%)	165	165	165	165	165
Yield Stress (5%) ASTM D 882 (PSI)	15,750	15,750	15,750	15,750	15,750
Break Strength (lbs./in.)	223	223	223	223	223
Yield Strength (5%) (lbs./in.)	115	115	115	115	115
Tear Strength ASTM D 1004 Graves Tear Test (Initial)	21	21	21	21	21
Tensile Modulus ASTM D 882 (PSI)	558,000	558,000	558,000	558,000	558,000
Puncture Strength ASTM D 4830 (lbs.)	125	125	125	125	125
Peel Strength (grams/inch of width)	3,325	3,325	3,325	3,325	3,325
Poisson's Ratio ASTM D 882	0.40	0.40	0.40	0.40	0.40
Abrasion Resistance (%) ASTM D 1003-92 ASTM D 1044 100 Cycles	<5	<5	<5	<5	<5
ANZI Z 97.1	Pass	Pass	Pass	Pass	Pass
CPSC CFR 1201, Category II	Pass	Pass	Pass	Pass	Pass
GSA Security Criteria Performance Condition Daylight Application (4 PSI / 28 PSI/msec)	3b	3b	3b	3b	3b
BS 6206, Class C	Pass	Pass	Pass	Pass	Pass
Flame Spread Index ASTM D 882	2	2	2	2	2
Smoke Index ASTM D 882	31	31	31	31	31
Flash Temperature (°F) ASTM D 1929	735	735	735	735	735
Combustion Rate	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE
Melting Point (°C)	263	263	263	263	263
Self Ignition (°F) ASTM D 1929	755	755	755	755	755

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