

**NR Charcoal - Sun-Gard Automotive Window Film**



1/4 inches = 6 mm	Shading Coeff.	Total Solar Energy Reject	Solar Reflect	Solar Absorb	Solar Transmit	Visible Light Reflect (Ext.)	Visible Light Transmit	UV Trans.	Emissivity	"U" Value (S)	"U" Value (Wm)	"U" Value (Ws)	Heat Reduction	Glare Reduction
NR Charcoal 05	0.680	40.80%	5.50%	50.80%	43.70%	4.50%	4.40%	<1%	0.86	0.95	1.02	1.03	28.3%	95.0%
NR Charcoal 20	0.710	38.20%	5.50%	47.00%	47.50%	4.70%	19.10%	<1%	0.86	0.95	1.02	1.03	25.1%	78.3%
NR Charcoal 35	0.790	31.30%	5.90%	36.60%	57.50%	5.40%	36.60%	<1%	0.86	0.95	1.02	1.03	16.7%	58.5%
NR Charcoal 55	0.840	26.90%	6.30%	29.20%	64.50%	6.30%	56.40%	<1%	0.86	0.95	1.02	1.03	11.4%	36.0%
NR Charcoal 70	0.880	23.40%	6.60%	24.60%	68.80%	7.20%	68.60%	<1%	0.86	0.95	1.02	1.03	7.2%	22.1%

1/8 inches = 3 mm	Shading Coeff.	Total Solar Energy Reject	Solar Reflect	Solar Absorb	Solar Transmit	Visible Light Reflect (Ext.)	Visible Light Transmit	UV Trans.	Emissivity	"U" Value (S)	"U" Value (Wm)	"U" Value (Ws)	Heat Reduction	Glare Reduction
NR Charcoal 05	0.700	39.10%	5.50%	48.30%	46.20%	4.40%	4.40%	<1%	0.87	0.98	1.04	1.05	30.0%	95.1%
NR Charcoal 20	0.730	36.50%	5.60%	44.30%	50.10%	4.60%	19.20%	<1%	0.87	0.98	1.04	1.05	27.0%	78.6%
NR Charcoal 35	0.810	29.50%	6.00%	33.80%	60.20%	5.30%	36.60%	<1%	0.87	0.98	1.04	1.05	19.0%	59.2%
NR Charcoal 55	0.860	25.20%	6.40%	26.40%	67.20%	6.20%	56.50%	<1%	0.87	0.98	1.04	1.05	14.0%	37.1%
NR Charcoal 70	0.900	21.70%	6.70%	21.90%	71.40%	7.00%	68.90%	<1%	0.87	0.98	1.04	1.05	10.0%	23.3%

Summary of Seasonal Conditions:

	Summer Day	Mild Winter	Severe Winter
Temperature Inside	75 F / 24 C	68 F / 20 C	70 F / 21 C
Temperature Outside	89 F / 32 C	45 F / 7 C	0 F / -18 C
Solar Intensity	248.2 Btu/hr-ft <sup>2</sup>	0 Btu/hr-ft <sup>2</sup>	0 Btu/hr-ft <sup>2</sup>
Wind Velocity	7.5 MPH / 4.6 KPH	15 MPH / 9 KPH	15 MPH / 9 KPH

Shading Coefficient calculated under SUMMER DAY conditions.

"U" (S) "U" Value calculated under SUMMER DAY conditions.

"U" (Wm) "U" Value calculated under MILD WINTER conditions.

"U" (Ws) "U" Value calculated under SEVERE WINTER conditions.

Notes:

1. Performance results were generated from testing film applied to 1/4" and 1/8" clear, monolithic, annealed glass. Results have been calculated using the Lawrence Berkeley Lab's "Windows 5.2" software program. Tests, equipment and methods are in accordance with ASTM and NFRC standards. Performance results are subject to variations within industry standards.

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