

MGM Industries, Inc. Window Performance Chart																								
4/05/2010																								
SHGC and VT values are without grids																								
MGM Series#	Type	DP Class Rating	Size Tested	cfm/ft <sup>2</sup> Air Infiltration	Water		Structural		U Factor				SHGC				Visible Transmittance				R-Factor			
					PSF	MPH	PSF	MPH	Clear Air	LoE Air	270 Argon	366 Argon	Clear Air	LoE Air	270 Argon	366 Argon	Clear Air	LoE Air	270 Argon	366 Argon	Clear Air	LoE Air	270 Argon	366 Argon
4010	DH PW			0.10 0.04					0.47 0.44	0.34 0.31	0.31 0.3	0.3	0.6 0.59	0.28 0.28	0.31 0.21	0.21	0.62 0.6	0.51 0.5	0.54 0.54	0.48 0.48	2.13 2.27	2.94 3.23	3.23 3.33	3.33
4600	DH PIC HS	DP-50 DP-50 DP-35	3850 4060 5338	0.17 0.01 0.16	7.50 7.50 5.25	54 54 45	75.0 75.0 52.5	171 171 131		0.32 0.31 0.31	0.3 0.28 0.31	0.3 0.28 0.3			0.28 0.32 0.28	0.21 0.24 0.21			0.53 0.61 0.54	0.49 0.56 0.49		3.13 3.23 3.23	3.33 3.57 3.23	3.33 3.57 3.33
4710	Case Case PW	DP-50 DP-40	3060 6050	0.02 0.02	7.50 7.50	54 54	75.0 60.0	171 153	0.42 0.42 0.47	0.32 0.32 0.32	0.29 0.29 0.29	0.29 0.29	0.65 0.65 0.7	0.31 0.31 0.32	0.25 0.25 0.18	0.18	0.55 0.55 0.72	0.46 0.46 0.6	0.46 0.46 0.46	0.43 0.43 0.43	2.38 2.38 2.13	3.13 3.13 3.13	3.45 3.45 3.45	3.45 3.45
5010	SH HS PICS TR	DP-30	3062	0.09 0.20 0.10 0.10	4.50	42	45.0	162	0.5 0.5 0.48 0.51	0.35 0.35 0.33 0.35	0.32 0.3	0.31 0.3	0.66 0.67 0.67 0.63	0.3 0.31	0.34 0.3	0.23	0.68 0.69 0.69 0.65	0.56 0.57 0.58 0.49	0.59 0.57	0.53 0.53	2.00 2.00 2.08 1.96	2.86 2.86 3.03 2.86	3.13	3.23
Lo-E#2&#3	SH			0.09							0.3	0.3			0.27	0.21			0.46	0.42			3.33	3.33
5610/5614	SH PW/TR	DP-40 DP-65	3854 3854	.004 0.01	6.00 9.75	48 62	60.0 97.5	153 187	0.47 0.46	0.33 0.33	0.29 0.29	0.29 0.29	0.63 0.63	0.29 0.28	0.22 0.33	0.22 0.22	0.54 0.63	0.51 0.52	0.51 0.57	0.56 0.51	2.13 2.17	3.03 3.03	3.45 3.45	3.45 3.45
5665	SH PW/TR	DP-65 DP-65	3854 3854	0.01 0.01	9.75 9.75	62 62	97.5 97.5	187 187																
5680	SH	DP-50	3070	0.01	9.75	62	75.0	171			0.37	0.32	0.32		0.37	0.37	0.29		0.55	0.55	0.5			
6010	SH HS PW	DP-30 DP-30 DP-50	3050 5940 4040	0.21 0.16 0.01	4.50 4.50 7.50	54 42 54	45.0 45.0 75.0	131 131 171	0.49 0.48 0.49	0.35 0.35 0.35	0.31 0.31 0.3	0.31 0.3	0.65 0.62 0.65	0.3 0.29	0.22 0.32	0.21 0.21	0.67 0.64 0.67	0.55 0.55 0.55	0.53 0.53	0.42 0.5	2.04 2.08 2.04	2.86 2.86 2.86	3.23 3.23	3.23 3.33
LoE#2&#3	SH	DP-30	3050	0.21	4.50	54	45.0	131			0.31	0.3			0.32	0.22			0.53	0.43			3.23	3.33
LoE#2&#3	HS	DP-30	5940	0.16	4.50	42	45.0	131			0.31	0.3			0.32	0.22			0.53	0.43			3.23	3.33
LoE#2&#3	PW	DP-50	4040	0.01	7.50	54	75.0	171			0.3	0.3			0.32	0.22			0.53	0.43			3.33	3.33
6064/6060	SH	DP-50	3062	0.09	7.50	54	75.0	171	0.49	0.35			0.65	0.29			0.67	0.55			2.04	2.86		
6064/6060	SH	DP-40	3854	0.17	7.50	48	60.0	153	0.49	0.35			0.65	0.29			0.67	0.55			2.04	2.86		
6064/6060	SH	DP-50	3260	0.12	7.50	54	75.0	171	0.49	0.35			0.65	0.29			0.67	0.55			2.04	2.86		
6064/6060	SHTriple	DP-40	9062	0.13	7.50	48	60.0	153	0.49	0.35			0.65	0.29			0.67	0.55			2.04	2.86		
6064/6060	SHTwin	DP-50	6062	0.11	7.50	54	75.0	171	0.49	0.35			0.65	0.29			0.67	0.55			2.04	2.86		
6064/6060	Twin/HR	DP-50	2860-5/4HR	0.11	7.50	54	75.0	171	0.49	0.35			0.65	0.29			0.67	0.55			2.04	2.86		
7010	DH PICS TR DHTW	DP-30 DP-25 DP-55 DP-25	4062 2854 2854 6062	0.09 0.16 0.00 0.09	4.50 3.75 8.25 3.75	45 38 57 38	45.0 37.5 82.5 37.5	131 121 180 121	0.46 0.47 0.46 0.46	0.33 0.33 0.33 0.33	0.3 0.29 0.29	0.29 0.29	0.61 0.63 0.61 0.61	0.28 0.28 0.28	0.32 0.32 0.32	0.21 0.21 0.21	0.62 0.65 0.63 0.62	0.51 0.52 0.52 0.52	0.55 0.56 0.56 0.51	0.49 0.5	2.17 2.13 2.17 2.17	3.03 3.03 3.03 3.03	3.33 3.45 3.45 3.45	3.45 3.45
8010	DH PIC TR	DP-35 DP-65 DP-65	3854 3854 3854	0.30 0.01 0.01	5.25 9.75 9.75	45 62 62	52.5 97.5 97.5	143 187 187	0.46 0.45 0.47	0.33 0.31 0.33	0.31 0.28 0.29	0.3 0.28 0.29	0.61 0.63 0.63	0.28 0.29 0.29	0.32 0.33 0.33	0.21 0.22 0.22	0.63 0.65 0.65	0.53 0.53 0.53	0.55 0.56 0.57	0.49 0.51 0.51	2.17 2.22 2.13	3.03 3.23 3.03	3.23 3.57 3.45	3.33 3.57 3.45
8065	DH DHTW Lami Gls.	DP-65 DP-50 DP-50	3854 7462 3070	0.27 0.25 0.25	9.75 7.50 7.50	62 54 54	97.5 75.0 75.0	187 171 171	0.46 0.46 0.46	0.33 0.33 0.33	0.31 0.31 0.3	0.3 0.3	0.61 0.61 0.61	0.36 0.28	0.32 0.32	0.21 0.21	0.63 0.63	0.53 0.52	0.55 0.55	0.49 0.49	2.17 2.17	3.03 3.03	3.23 3.23	3.33 3.33
8005PD	PD-XO PD-XO	DP-20 DP-35	8068 6068	0.09 0.28	3.00 5.25	34 48	30.0 52.5	108 143	0.49 0.49	0.35 0.36	0.32 0.32	0.32	0.64 0.64	0.29 0.29	0.31 0.21	0.21	0.66 0.66	0.54 0.54	0.5 0.5	0.41 0.41	2.10 2.10	2.90 2.90	2.90 2.90	2.90 2.90
9000PD	PD-XO PD-OXO PD-XO	DP-35 DP50 DP-50	6068 90610 8080	0.20 0.15 0.08	5.25 7.50 7.50	34 54 48	52.5 75.0 75.0	143 171 171			0.29 0.29	0.29			0.3 0.22	0.22			0.57 0.52	0.52			3.45 3.45	3.45 3.45

Let's assume a customer is in the "Northern region" and is looking for a 6010 Single Hung. Look at the map on the next page - in this case the U-value must be lower or equal to 0.30 and the SHGC should be "ANYTHING". From here, go to the row above marked "6010". Under that row look in the "U FACTOR" column and you will find that a 6010 Single Hung with Low-E has a U-value of 0.31, which will not meet Energy Star. However, when you look to the extreme left column you will find "LoE#2&3 SH", which means Low-E on the two inner surfaces of the glass (hence, double Lo-E). Return to the "U-FACTOR" column. The U-value is now 0.30, which qualifies for the Energy Star rating and the 30/30 tax credit.

# ENERGY STAR® Qualification Criteria for Residential Windows, Doors, and Skylights

## Windows

Climate Zone	U-Factor <sup>1</sup>	SHGC <sup>2</sup>	
Northern	≤ 0.30	Any	Prescriptive
	≤ 0.31	≥ 0.35	Equivalent Energy Performance
	≤ 0.32	≥ 0.40	
North-Central	≤ 0.32	≤ 0.40	
South-Central	≤ 0.35	≤ 0.30	
Southern	≤ 0.60	≤ 0.27	

## Doors

Glazing Level	U-Factor <sup>1</sup>	SHGC <sup>2</sup>
Opaque	≤ 0.21	No Rating
≤ 1/2-Lite	≤ 0.27	≤ 0.30
> 1/2-Lite	≤ 0.32	≤ 0.30

## Skylights

Climate Zone	U-Factor <sup>1</sup>	SHGC <sup>2</sup>
Northern	≤ 0.55	Any
North-Central	≤ 0.55	≤ 0.40
South-Central	≤ 0.57	≤ 0.30
Southern	≤ 0.70	≤ 0.30

<sup>1</sup> Btu/h.ft<sup>2</sup>.°F

<sup>2</sup> Fraction of incident solar radiation

