

# Technical Data Sheets and Specifications

## 3M™ Flat Glass Window Film – Single Pane 1/4” (6mm) Clear

Film	SHGC	VLТ	Visible Reflection Exterior	Visible Reflection Interior	U Value	Luminous Efficacy	UV Block	SC	TSER	Glare Reduction	Heat Loss Reduction	Heat Gain Reduction
1/4" Clear	0.82	89%	8%	9%	1.03	1.1	38%	0.94	19%	NA	NA	NA
PR40	0.40	39%	7%	7%	0.99	1.0	99.9%	0.46	60%	55%	3%	50%
PR50	0.44	50%	8%	7%	0.99	1.1	99.9%	0.50	56%	44%	3%	46%
PR60	0.47	60%	8%	8%	0.99	1.3	99.9%	0.54	53%	32%	3%	42%
PR70	0.50	69%	9%	9%	0.99	1.4	99.9%	0.58	50%	22%	3%	38%
CM30	0.41	36%	17%	15%	1.02	0.9	99%	0.47	59%	60%	0%	50%
CM40	0.47	44%	14%	12%	1.03	0.9	99%	0.54	53%	50%	0%	43%
CM50	0.53	53%	12%	10%	1.03	1.0	99%	0.61	47%	40%	0%	35%
NV15	0.28	15%	38%	11%	0.98	0.5	99%	0.32	72%	83%	4%	66%
NV25	0.39	24%	19%	7%	1.00	0.6	99%	0.45	61%	73%	2%	52%
NV35	0.48	36%	13%	7%	1.03	0.7	99%	0.55	52%	59%	0%	41%
P18	0.23	17%	56%	58%	0.93	0.7	99%	0.26	77%	81%	9%	72%
Neutral 20	0.38	15%	21%	19%	0.99	0.4	99%	0.44	62%	83%	3%	53%
Neutral 35	0.44	36%	20%	18%	0.99	0.8	99%	0.51	56%	60%	4%	46%
Neutral 50	0.56	52%	12%	11%	1.03	0.9	98%	0.64	44%	41%	0%	31%
Neutral 70	0.68	69%	9%	8%	1.03	1.0	98%	0.78	32%	22%	0%	17%
Silver 35	0.36	35%	36%	40%	0.92	1.0	98%	0.41	64%	60%	10%	56%
Nickel 50	0.44	50%	24%	23%	0.92	1.1	99%	0.50	56%	44%	10%	46%
Affinity 15	0.21	9%	58%	25%	1.00	0.4	99%	0.24	79%	90%	2%	74%
Affinity 30	0.39	33%	29%	19%	0.94	0.8	99%	0.45	61%	63%	8%	52%
Amber35	0.25	30%	54%	60%	0.85	1.2	99%	0.29	75%	67%	17%	69%
Amber LowE 35	0.25	30%	52%	56%	0.76	1.2	99%	0.28	75%	66%	26%	70%
Ultra PR S50	0.44	50%	8%	7%	0.99	1.1	99.9%	0.50	56%	44%	3%	46%
Ultra PR S70	0.50	69%	9%	9%	0.99	1.4	99.9%	0.58	50%	22%	3%	38%
Ultra NV S25	0.38	27%	23%	12%	0.97	0.7	99%	0.43	63%	69%	6%	54%
Ultra Silver S20	0.23	17%	56%	58%	0.93	0.7	99%	0.26	77%	81%	9%	72%
Ultra Neutral S35	0.44	36%	20%	18%	0.99	0.8	99%	0.51	56%	60%	4%	46%
Ultra Neutral S50	0.56	52%	12%	11%	1.03	0.9	98%	0.64	44%	41%	0%	31%
Ultra S150	0.82	87%	11%	11%	1.03	1.1	98%	0.94	19%	2%	0%	0%
Ultra S400	0.79	86%	11%	11%	1.03	1.1	98%	0.91	21%	3%	0%	3%
Ultra S600	0.78	84%	10%	10%	1.03	1.1	99%	0.90	22%	5%	0%	4%
Safety S40	0.82	87%	8%	8%	1.03	1.1	99%	0.94	19%	2%	0%	0%
Safety S70	0.79	86%	9%	9%	1.03	1.1	98%	0.91	21%	3%	0%	3%
Safety S80	0.79	86%	9%	9%	1.03	1.1	99%	0.91	21%	3%	0%	3%
Safety S140	0.78	85%	10%	10%	1.03	1.1	99%	0.90	22%	4%	0%	4%
Silver 15 External	0.19	17%	61%	56%	1.02	0.9	99%	0.22	81%	81%	0%	77%
Bronze 20 External	0.22	23%	32%	33%	1.02	1.1	99%	0.25	78%	74%	0%	73%
Neutral 35 External	0.49	44%	10%	13%	1.02	0.9	99%	0.56	51%	50%	0%	40%
Silver 35 External	0.36	35%	35%	36%	1.02	1.0	99%	0.41	64%	60%	1%	56%
PR40X	0.39	42%	6%	5%	1.02	1.1	99.9%	0.44	61%	53%	0%	53%
PR70X	0.48	71%	7%	7%	1.02	1.5	99.9%	0.55	52%	20%	0%	41%
PR90X	0.64	88%	9%	9%	1.02	1.4	99.9%	0.74	36%	1%	0%	21%
Safety S40 Exterior	N/A	N/A	N/A	N/A	N/A	N/A	99%	N/A	N/A	N/A	N/A	N/A
Anti Graffiti 4 & 6	N/A	N/A	N/A	N/A	N/A	N/A	99%	N/A	N/A	N/A	N/A	N/A

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Renewable Energy Division

St. Paul, MN 55144-1000

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# Technical Data Sheets and Specifications

## 3M™ Flat Glass Window Film – Single Pane 1/4" (6mm) Tinted Glass

Film	SHGC	VLT	Visible Reflection Exterior	Visible Reflection Interior	U Value	Luminous Efficacy	UV Block	SC	TSER	Glare Reduction	Heat Loss Reduction	Heat Gain Reduction
1/4" tint	0.63	53%	6%	6%	1.03	0.8	NA	0.72	37%	NA	NA	NA
PR40	0.37	24%	5%	6%	0.99	0.6	99.9%	0.42	63%	55%	3%	41%
PR50	0.39	30%	6%	6%	0.99	0.8	99.9%	0.45	61%	43%	3%	38%
PR60	0.41	36%	6%	7%	0.99	0.9	99.9%	0.47	59%	32%	3%	34%
PR70	0.43	42%	6%	7%	0.99	1.0	99.9%	0.50	57%	22%	3%	31%
CM30	0.38	21%	9%	15%	1.02	0.6	99%	0.43	63%	60%	0%	40%
CM40	0.41	27%	8%	11%	1.03	0.6	99%	0.47	59%	50%	0%	34%
CM50	0.45	32%	7%	9%	1.03	0.7	99%	0.52	55%	40%	0%	28%
NV15	0.30	9%	16%	11%	0.98	0.3	99%	0.34	70%	82%	4%	52%
NV25	0.36	14%	10%	7%	1.00	0.4	99%	0.41	64%	74%	2%	43%
NV35	0.42	22%	8%	6%	1.03	0.5	99%	0.48	58%	58%	0%	33%
P18	0.27	10%	23%	58%	0.93	0.4	99%	0.30	74%	82%	9%	58%
Neutral 20	0.32	9%	10%	19%	0.99	0.3	99%	0.37	68%	83%	3%	49%
Neutral 35	0.39	21%	10%	18%	0.99	0.5	99%	0.45	61%	60%	4%	38%
Neutral 50	0.47	31%	7%	10%	1.03	0.7	99%	0.54	53%	41%	0%	25%
Neutral 70	0.55	42%	6%	7%	1.03	0.8	99%	0.63	45%	22%	0%	13%
Silver 35	0.34	21%	16%	40%	0.92	0.6	99%	0.39	66%	61%	10%	46%
Nickel 50	0.38	30%	12%	22%	0.92	0.8	99%	0.44	62%	44%	10%	39%
Affinity 15	0.27	5%	24%	25%	1.00	0.2	99%	0.31	73%	91%	2%	57%
Affinity 30	0.37	20%	14%	19%	0.94	0.5	99%	0.43	63%	62%	8%	41%
Amber35	0.27	17%	22%	60%	0.85	0.7	99%	0.31	73%	67%	17%	57%
Amber LowE 35	0.25	18%	22%	56%	0.76	0.7	99%	0.29	75%	67%	26%	60%
Ultra PR S50	0.39	30%	6%	6%	0.99	0.8	99.9%	0.45	61%	43%	3%	38%
Ultra PR S70	0.43	42%	6%	7%	0.99	1.0	99.9%	0.50	57%	22%	3%	31%
Ultra NV S25	0.35	16%	11%	12%	0.97	0.5	99%	0.40	65%	69%	6%	44%
Ultra Silver S20	0.28	9%	23%	61%	0.93	0.3	99%	0.32	72%	83%	9%	56%
Ultra Neutral S35	0.39	21%	10%	18%	0.99	0.5	99%	0.45	61%	60%	4%	38%
Ultra Neutral S50	0.47	30%	8%	10%	1.03	0.7	99%	0.54	53%	43%	0%	25%
Ultra S150	0.59	47%	7%	7%	1.03	0.8	99%	0.68	41%	11%	0%	6%
Ultra S400	0.59	47%	6%	6%	1.03	0.8	99%	0.68	41%	11%	0%	6%
Ultra S600	0.59	47%	6%	6%	1.03	0.8	99%	0.68	41%	11%	0%	6%
Safety S40	0.59	47%	6%	6%	1.03	0.8	99%	0.68	41%	11%	0%	6%
Safety S70	0.59	47%	6%	6%	1.03	0.8	99%	0.68	41%	11%	0%	6%
Safety S80	0.59	47%	6%	6%	1.03	0.8	99%	0.68	41%	11%	0%	6%
Safety S140	0.59	47%	6%	6%	1.03	0.8	99%	0.68	41%	11%	0%	6%
Silver 15 External	0.16	10%	61%	23%	1.02	0.6	99%	0.18	84%	82%	0%	75%
Bronze 20 External	0.19	14%	32%	15%	1.02	0.7	99%	0.21	81%	74%	0%	70%
Neutral 35 External	0.41	27%	10%	8%	1.02	0.6	99%	0.47	59%	50%	0%	34%
Silver 35 External	0.30	21%	35%	16%	1.02	0.7	99%	0.34	70%	61%	1%	53%
PR40X	0.33	25%	5%	5%	1.02	0.8	99.9%	0.38	67%	53%	0%	47%
PR70X	0.39	42%	6%	5%	1.02	1.1	99.9%	0.44	61%	20%	0%	39%
PR90X	0.50	53%	6%	6%	1.02	1.1	99.9%	0.57	50%	1%	0%	21%
Safety S40 Exterior	N/A	N/A	N/A	N/A	N/A	N/A	99%	N/A	N/A	N/A	N/A	N/A
Anti Graffiti 4 & 6	N/A	N/A	N/A	N/A	N/A	N/A	99%	N/A	N/A	N/A	N/A	N/A

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# Technical Data Sheets and Specifications

## 3M™ Flat Glass Window Film – Double Pane 1/4” (6mm) Clear Glass

Film	SHGC	VLT	Visible Reflection Exterior	Visible Reflection Interior	U Value	Luminous Efficacy	UV Block	SC	TSER	Glare Reduction	Heat Loss Reduction	Heat Gain Reduction
Dual 1/4" Clear	0.70	79%	15%	15%	0.47	1.1	NA	0.80	30%	NA	NA	NA
PR40	0.51	35%	14%	8%	0.47	0.7	99.9%	0.59	49%	55%	2%	27%
PR50	0.53	45%	15%	9%	0.47	0.8	99.9%	0.61	47%	44%	2%	25%
PR60	0.54	54%	15%	11%	0.47	1.0	99.9%	0.62	46%	32%	2%	22%
PR70	0.56	62%	15%	13%	0.47	1.1	99.9%	0.64	44%	22%	2%	21%
CM30	0.50	32%	22%	16%	0.47	0.6	99%	0.58	50%	60%	1%	28%
CM40	0.54	40%	20%	14%	0.47	0.7	99%	0.62	46%	50%	1%	23%
CM50	0.57	47%	18%	12%	0.47	0.8	99%	0.66	43%	40%	1%	18%
NV15	0.40	14%	39%	11%	0.46	0.4	99%	0.46	60%	82%	3%	43%
NV25	0.49	22%	24%	8%	0.47	0.4	99%	0.57	51%	72%	1%	29%
NV35	0.55	32%	19%	8%	0.47	0.6	99%	0.64	45%	60%	1%	21%
P18	0.33	15%	55%	58%	0.45	0.5	99%	0.37	67%	80%	5%	53%
Neutral 20	0.46	14%	25%	19%	0.47	0.3	99%	0.53	54%	83%	2%	34%
Neutral 35	0.51	32%	24%	19%	0.46	0.6	99%	0.59	49%	60%	2%	27%
Neutral 50	0.59	46%	18%	13%	0.48	0.8	99%	0.67	41%	41%	0%	16%
Neutral 70	0.64	62%	16%	12%	0.48	1.0	99%	0.74	36%	22%	0%	8%
Silver 35	0.43	32%	38%	41%	0.45	0.7	99%	0.49	57%	59%	6%	39%
Nickel 50	0.48	45%	28%	25%	0.45	0.9	99%	0.55	52%	43%	6%	31%
Affinity 15	0.32	8%	57%	26%	0.47	0.3	99%	0.37	68%	90%	1%	54%
Affinity 30	0.46	30%	32%	20%	0.45	0.7	99%	0.53	54%	62%	5%	34%
Amber35	0.32	28%	53%	61%	0.42	0.8	99%	0.37	68%	65%	11%	54%
Amber LowE 35	0.32	28%	51%	57%	0.39	0.9	99%	0.37	68%	65%	17%	55%
Ultra PR S50	0.53	45%	15%	9%	0.47	0.8	99.9%	0.61	47%	44%	2%	25%
Ultra PR S70	0.56	62%	15%	13%	0.47	1.1	99.9%	0.64	44%	22%	2%	21%
Ultra NV S25	0.47	25%	27%	13%	0.46	0.5	99%	0.54	53%	69%	3%	33%
Ultra Silver S20	0.33	15%	55%	58%	0.45	0.5	99%	0.37	67%	80%	5%	53%
Ultra Neutral S35	0.51	32%	24%	19%	0.46	0.6	99%	0.59	49%	60%	2%	27%
Ultra Neutral S50	0.59	46%	18%	13%	0.48	0.8	99%	0.67	41%	41%	0%	16%
Ultra S150	0.68	77%	17%	17%	0.47	1.1	99%	0.78	32%	3%	0%	3%
Ultra S400	0.68	75%	18%	18%	0.47	1.1	99%	0.78	32%	5%	0%	3%
Ultra S600	0.68	73%	18%	18%	0.47	1.1	99%	0.78	32%	8%	0%	3%
Safety S40	0.68	77%	15%	15%	0.47	1.1	99%	0.78	32%	3%	0%	3%
Safety S70	0.68	77%	16%	16%	0.47	1.1	99%	0.78	32%	3%	0%	3%
Safety S80	0.68	77%	16%	16%	0.47	1.1	99%	0.78	32%	3%	0%	3%
Safety S140	0.68	72%	16%	16%	0.47	1.1	99%	0.78	32%	9%	0%	3%
Silver 15 External	0.14	15%	61%	54%	0.47	1.1	99%	0.17	86%	81%	0%	79%
Bronze 20 External	0.17	21%	33%	35%	0.47	1.3	99%	0.19	84%	73%	0%	76%
Neutral 35 External	0.38	40%	12%	18%	0.47	1.1	99%	0.43	62%	50%	0%	46%
Silver 35 External	0.29	32%	36%	37%	0.47	1.1	99%	0.33	71%	59%	0%	59%
PR40X	0.29	37%	7%	13%	0.47	1.3	99.9%	0.33	71%	53%	1%	59%
PR70X	0.39	63%	12%	14%	0.47	1.6	99.9%	0.44	61%	20%	0%	45%
PR90X	0.56	78%	15%	16%	0.47	1.4	99.9%	0.64	45%	1%	1%	21%
Safety S40 Exterior	N/A	N/A	N/A	N/A	N/A	N/A	99%	N/A	N/A	N/A	N/A	N/A
Anti Graffiti 4 & 6	N/A	N/A	N/A	N/A	N/A	N/A	99%	N/A	N/A	N/A	N/A	N/A

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# Technical Data Sheets and Specifications

## 3M™ Flat Glass Window Film – Double Pane 1/4” (6mm) Tinted Glass

Film	SHGC	VLT	Visible Reflection Exterior	Visible Reflection Interior	U Value	Luminous Efficacy	UV Block	SC	TSER	Glare Reduction	Heat Loss Reduction	Heat Gain Reduction
Dual 1/4" tint	0.51	47%	8%	13%	0.47	0.9	NA	0.58	49%	NA	NA	NA
PR40	0.39	21%	8%	8%	0.47	0.5	99.9%	0.45	61%	55%	2%	23%
PR50	0.40	27%	8%	9%	0.47	0.7	99.9%	0.46	60%	44%	2%	22%
PR60	0.41	32%	8%	10%	0.47	0.8	99.9%	0.47	59%	32%	2%	20%
PR70	0.42	37%	8%	12%	0.47	0.9	99.9%	0.48	59%	22%	2%	18%
CM30	0.38	19%	11%	16%	0.47	0.5	99%	0.44	62%	60%	1%	25%
CM40	0.40	24%	10%	13%	0.47	0.6	99%	0.46	60%	50%	1%	21%
CM50	0.43	28%	9%	11%	0.47	0.7	99%	0.49	58%	40%	1%	16%
NV15	0.32	8%	17%	11%	0.46	0.3	99%	0.37	68%	83%	3%	37%
NV25	0.37	13%	12%	8%	0.47	0.4	99%	0.43	63%	73%	1%	27%
NV35	0.41	19%	10%	7%	0.47	0.5	99%	0.47	59%	60%	1%	19%
P18	0.27	9%	23%	58%	0.45	0.3	99%	0.31	73%	81%	5%	47%
Neutral 20	0.36	8%	12%	19%	0.47	0.2	99%	0.41	64%	83%	2%	30%
Neutral 35	0.39	19%	12%	19%	0.46	0.5	99%	0.45	61%	60%	2%	23%
Neutral 50	0.44	28%	10%	13%	0.48	0.6	99%	0.50	57%	41%	0%	14%
Neutral 70	0.47	37%	9%	11%	0.48	0.8	99%	0.54	53%	22%	0%	7%
Silver 35	0.33	19%	16%	41%	0.45	0.6	99%	0.38	67%	60%	6%	34%
Nickel 50	0.36	27%	13%	24%	0.45	0.7	99%	0.42	64%	43%	6%	28%
Affinity 15	0.27	5%	23%	25%	0.47	0.2	99%	0.31	73%	89%	1%	47%
Affinity 30	0.36	18%	15%	20%	0.45	0.5	99%	0.41	64%	62%	5%	29%
Amber35	0.26	16%	22%	61%	0.42	0.6	99%	0.30	74%	66%	11%	48%
Amber LowE 35	0.26	16%	21%	57%	0.39	0.6	99%	0.29	74%	65%	17%	50%
Ultra PR S50	0.40	27%	8%	9%	0.47	0.7	99.9%	0.46	60%	44%	2%	22%
Ultra PR S70	0.42	37%	8%	12%	0.47	0.9	99.9%	0.48	59%	22%	2%	18%
Ultra NV S25	0.36	15%	13%	13%	0.46	0.4	99%	0.41	64%	69%	3%	29%
Ultra Silver S20	0.27	9%	23%	58%	0.45	0.3	99%	0.31	73%	81%	5%	47%
Ultra Neutral S35	0.39	19%	12%	19%	0.46	0.5	99%	0.45	61%	60%	2%	23%
Ultra Neutral S50	0.44	28%	10%	13%	0.48	0.6	99%	0.50	57%	41%	0%	14%
Ultra S150	0.46	45%	8%	8%	0.47	1.0	99%	0.53	54%	5%	0%	9%
Ultra S400	0.46	42%	8%	8%	0.47	0.9	99%	0.53	54%	11%	0%	9%
Ultra S600	0.46	41%	8%	8%	0.47	0.9	99%	0.53	54%	13%	0%	9%
Safety S40	0.46	45%	14%	14%	0.47	1.0	99%	0.53	54%	5%	0%	9%
Safety S70	0.46	43%	8%	8%	0.47	0.9	99%	0.53	54%	9%	0%	9%
Safety S80	0.46	43%	8%	8%	0.47	0.9	99%	0.53	54%	9%	0%	9%
Safety S140	0.46	43%	8%	8%	0.47	0.9	99%	0.53	54%	9%	0%	9%
Silver 15 External	0.11	9%	61%	27%	0.47	0.8	99%	0.13	89%	81%	0%	78%
Bronze 20 External	0.13	12%	32%	20%	0.47	1.0	99%	0.15	87%	74%	0%	75%
Neutral 35 External	0.29	24%	10%	14%	0.47	0.8	99%	0.34	71%	50%	0%	42%
Silver 35 External	0.22	19%	35%	21%	0.47	0.9	99%	0.25	78%	60%	0%	57%
PR40X	0.23	22%	6%	12%	0.47	1.0	99.9%	0.26	77%	53%	0%	55%
PR70X	0.29	38%	7%	13%	0.47	1.3	99.9%	0.33	71%	21%	0%	43%
PR90X	0.41	47%	9%	13%	0.47	1.2	99.9%	0.47	60%	1%	0%	20%
Safety S40 Exterior	N/A	N/A	N/A	N/A	N/A	N/A	99%	N/A	N/A	N/A	N/A	N/A
Anti Graffiti 4 & 6	N/A	N/A	N/A	N/A	N/A	N/A	99%	N/A	N/A	N/A	N/A	N/A

**Important:**

The information provided in this report is believed to be reliable; however, due to the wide variety of intervening factors, 3M does not warrant that the results will necessarily be obtained. All details concerning product specifications and terms of sale are available from 3M.



Renewable Energy Division

St. Paul, MN 55144-1000

1-800-480-1704

[www.3M.com/windowfilm](http://www.3M.com/windowfilm)

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04/08 DMR #