



# **PRODUCT SPECIFICATIONS**

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# SCOPE

This specification covers the requirements for float glass that has been etched on one or both sides or for acid-etched mirror and supplied as stock sheets.

## **GENERAL INFORMATION**

The proprietary **Walker Textures**<sup>®</sup> process uses a controlled solution of hydrofluoric acid to uniformly etch the surface of the glass. Rigorous process control ensures a repeatable uniformity in appearance. Unlike coated glass, the surface is not susceptible to discoloration and cannot delaminate or be scraped off, assuring a consistent appearance over time. Additionally, **Walker Textures**<sup>®</sup> glass is far less porous than sandblasted glass, making it much more resistant to marring and staining.

#### PHYSICAL PROPERTIES

*Walker Textures®* acid-etched glass products are made from selected *float* glass which conforms to the following standards:

- USA ASTM C 1036-21 Standard Specification for Flat Glass Quality: Q3 - Stock Sheet
- CANADA CAN/CGSB-12.3-M91 National Standard of Canada Flat, Clear Float Glass Quality: Glazing

*Walker Textures®* acid-etched mirror products are made from selected mirrors which conform to the following standards:

- USA ASTM C 1503-18 (2018) Standard Specification for Flat Glass Mirrors
- CANADA CAN/CGSB-12.5-M86 Type 1B National Standard of Canada Mirrors, Silvered (Withdrawal May 2004)

Specifications of *Walker Textures®* glass products are substantially aligned with ASTM C 1036-21 and CAN/CGSB-12.3-M91. However, there are variations that are specific to the unique and proprietary nature of the manufacturing processes of *Walker Textures®* products. For more information, please contact customer service.



# MIRROR SPECIFICATIONS CONFORMITY STATEMENT

Walker Glass mirrors conform to the following two recognized North American standards for mirror.

Acid-etched Glass and Mirror

USA ASTM C 1503-18 (2018) Standard Specification for Silvered Flat Glass Mirror

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Canada CAN/CGSB – 12.5 - M86 TYPE 1B National Standard of Canada for Mirrors, Silvered (Withdrawal May 2004)

Requirements under these standards vary according to product classifications. The following table summarizes the classification applicable to each of Walker Glass' mirror products.

USA	WALKER GLASS	ASTM C 1503-18 (2018)
	SUBSTRATE	QUALITY CLASSIFICATION
	CLEAR MIRROR – 5MM, 6MM	MIRROR SELECT QUALITY
	CLEAR MIRROR – 2,3 & 4MM	MIRROR GLAZING QUALITY
	TINTED MIRROR (INCLUDING LOW-IRON) ALL THICKNESSES	MIRROR GLAZING QUALITY
	WALKER GLASS	ASTM C 1503-18 (2018)
	SIZE	GRADE CLASSIFICATION
	STOCK SIZES LENGTH 120" TO 144"	MIRROR LEHR END GRADE
	STOCK SIZES LENGTH BELOW 120"	MIRROR STOCK SHEET GRADE
	CUT SIZES	MIRROR CUT SIZE GRADE

CANADA	WALKER GLASS	CAN/CGSB-12.5-M86
	SUBSTRATE/SIZE	CLASSIFICATION (Withdrawal May 2004)
	CLEAR MIRROR – ALL THICKNESSES & ALL SIZES	TYPE 1B – Polished plate or float glass for high-humidity use
	TINTED MIRROR (INCLUDING LOW-IRON) ALL THICKNESSES AND SIZES	Not covered under the standard



# **PROPERTIES AND PERFORMANCE CHARACTERISTICS**

alker tex

#### ACID-ETCHED GLASS AND MIRROR STOCK SHEETS

Stock sheets of all **Walker Textures**<sup>®</sup> products are uniformly etched over the entire surface of one or both sides, except for a 1" unusable border on all four sides of our acid-etched products with the exception of the Velour finish with a 3/4" unusable border. Variances in opacity within a sheet will be indistinguishable to the naked eye when viewed under normal viewing conditions.

Acid-etched Glass and Mirror

For specific properties and performance data, please consult the following tables:

#### **Physical Properties**

Table A1 - Glass thickness values Table A2 - Strength properties Table A3 - Resistance properties

#### Light, Optical and Thermal Performance Values

Table B1 – Thermal and Optical performance values Table B2 - Daylight diffusion properties





## TABLE A1 ACID ETCHED GLASS THICKNESS RANGE

Float Glass Nominal Designation	Ора	Range for <b>que</b> d Products	Vel	Range for <b>OUT</b> d Products	Sa	Range for <b>tin</b> d Products	Thickness Range for <b>Satinlite</b> Acid-etched Products		
	mm		n	nm	m	ım	mm		
	Min.	Max.	Min.	Max.	Min.	Max.	M in.	Max.	
3 mm	2.92	3.40	2.92	3.40	2.84	3.32	2.74	3.22	
4 mm	3.78	4.19	3.78	4.19	3.70	4.11	3.60	4.01	
5 mm	4.57	5.05	4.57	5.05	4.49	4.97	4.39	4.87	
6 mm	5.56	6.20	5.56	6.20	5.48	6.12	5.38	6.02	
8 mm	7.42	8.43	7.42	8.43	7.34	8.35	7.24	8.25	
10 m m	9.02	10.31	9.02	10.31	8.94	10.23	8.84	10.13	
12 m m	11.91	13.49	11.91	13.49	11.83	13.41	11.73	13.31	
15 m m	15.09	16.66	15.09	16.66	15.01	16.58	14.91	16.48	
19 m m	18.26	19.84	18.26	19.84	18.18	19.76	18.08	19.66	

June 2014





# TABLE A2ACID-ETCHED GLASS STRENGTH PROPERTIES

Test/Standa	ard	6mm Sati	n Tempered	6mm Unetched Tempered	
Modulous of Rupture	ASTM-C158	Etched Surface in U			
Modulous of Rupture	AS TIVEC 150	Tension	Tension		
Max Load (pou	unds)	357	351	338	Higher number = better
Flexural Strengt	th (psi)	1,070	1,070 1,050 1,000		Higher number = better
Modulous of Rupt	ture (psi)	28,720	28,370	26,720	Higher number = better

December 2021





# TABLE A3 ACID-ETCHED GLASS AND MIRROR RESISTANCE PROPERTIES

Test/Standa	Opaque (**)	Velour (**)	Satin (**)	Satinlite (*)	Float	Unit of Measure		
Resistance to Wear	ASTM-C501	213	210	198	214.86	183.29	Abrasive Wear Index (lx)	Higher number = better
Resistance to Staining	ASTM-C1378	Α	Α	A	Α	Α	Classification	Higher number = better
Scratch Hardness	MOHs	5	5	6	7	5.5	Out of possible 10	Higher number = better

(\*) Acid-etched Glass Only

(\*\*) Acid-etched Glass & Mirror

January 2024

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#### TABLE B1 ACID-ETCHED GLASS OPTICAL AND THERMAL PERFORMANCE VALUES

	Ufactor			1									
Monolithic Unit Performance	Wi	Winter		Summer		Visible Light		Solar Light			UV		
	Btu/h-ft2-F	W/m2-K	Btu/h-ft2-F	W/m2-K	Transmission	Refl. Ext	Refl. Int.	Transmission	Refl. Ext	Refl. Int.	Transmission	SHGC	LSG
6mm clear glass													
Opaque(1)	1.03	5.82	0.93	5.26	87%	7%	7%	74%	6%	6%	57%	0.801	1.09
Velour(1)	1.03	5.82	0.93	5.26	88%	7%	7%	76%	6%	6%	57%	0.810	1.08
Satin(1)	1.03	5.83	0.93	5.27	88%	8%	8%	76%	7%	7%	57%	0.810	1.08
Opaque(2)	1.04	5.88	0.94	5.31	84%	8%	8%	71%	6%	6%	54%	0.780	1.07
Velour(2)	1.03	5.87	0.93	5.31	83%	8%	8%	72%	7%	7%	53%	0.788	1.06
Satin(2)	1.03	5.86	0.93	5.29	88%	8%	8%	76%	7%	7%	57%	0.810	1.08
6mm Starphire													
Opaque(1)	1.02	5.82	0.93	5.26	90%	8%	8%	86%	7%	7%	63%	0.88	1.02
Velour(1)	1.03	5.82	0.93	5.26	90%	8%	8%	88%	8%	8%	68%	0.89	1.01
Satin(1)	1.03	5.82	0.93	5.26	91%	8%	8%	88%	7%	7%	69%	0.90	1.01
Opaque(2)	1.03	5.87	0.93	5.30	87%	8%	8%	84%	7%	7%	61%	0.86	1.01
Velour(2)	1.03	5.87	0.93	5.31	87%	8%	8%	85%	8%	8%	64%	0.87	1.00
Satin(2)	1.03	5.85	0.93	5.28	91%	8%	8%	88%	8%	8%	69%	0.89	1.01

Insulated Glass Unit Performance	Ufactor			]									
(1/2" air)   All 6mm glasses	Win	nter	Sum	mer	Visible Light		Solar Light			UV			
(1/2 un)   An onini glusses	Btu/h-ft2-F	W/m2-K	Btu/h-ft2-F	W/m2-K	Transmission	Refl. Ext	Refl. Int.	Transmission	Refl. Ext	Refl. Int.	Transmission	SHGC	LSG
Opaque(1) Clear - SB60(3) Clear	0.29	1.65	0.27	1.55	61%	14%	10%	29%	26%	28%	22%	0.44	1.40
Velour(1) Clear - SB60(3) Clear	0.29	1.65	0.27	1.55	61%	14%	10%	29%	27%	28%	22%	0.44	1.39
Satin(1) Clear - SB60(3) Clear	0.29	1.65	0.27	1.55	64%	13%	10%	31%	28%	28%	22%	0.45	1.43
Opaque(2) Clear - SB60(3) Clear	0.29	1.65	0.27	1.55	59%	14%	10%	28%	26%	28%	21%	0.42	1.39
Velour(2) Clear - SB60(3) Clear	0.29	1.65	0.27	1.55	58%	14%	11%	28%	27%	28%	20%	0.42	1.38
Satin(2) Clear - SB60(3) Clear	0.29	1.65	0.27	1.55	64%	14%	10%	31%	28%	28%	22%	0.45	1.43
SB60(2) Clear - Opaque(3) Clear	0.29	1.65	0.27	1.55	69%	10%	13%	33%	27%	26%	24%	0.39	1.76
SB60(2) Clear - Velour(3) Clear	0.29	1.65	0.27	1.55	69%	10%	13%	33%	27%	27%	24%	0.39	1.76
SB60(2) Clear - Satin(3) Clear	0.29	1.65	0.27	1.55	69%	10%	13%	33%	28%	28%	24%	0.39	1.77
SB60(2) Clear - Opaque(4) Clear	0.29	1.66	0.27	1.55	66%	10%	14%	31%	28%	26%	23%	0.39	1.70
SB60(2) Clear - Velour(4) Clear	0.29	1.66	0.27	1.55	66%	10%	14%	31%	28%	27%	23%	0.39	1.69
SB60(2) Clear - Satin(4) Clear	0.29	1.66	0.27	1.55	69%	10%	13%	33%	28%	28%	24%	0.39	1.77
Opaque(1) Starphire - SB60(3) Starphire	0.29	1.65	0.27	1.55	65%	14%	11%	34%	39%	40%	26%	0.47	1.39
Velour(1) Starphire - SB60(3) Starphire	0.29	1.65	0.27	1.55	65%	15%	11%	35%	42%	40%	26%	0.47	1.39
Satin(1) Starphire - SB60(3) Starphire	0.29	1.65	0.27	1.55	68%	14%	11%	36%	43%	40%	27%	0.48	1.42
Opaque(2) Starphire - SB60(3) Starphire	0.29	1.65	0.27	1.55	63%	15%	11%	33%	40%	40%	25%	0.46	1.38
Velour(2) Starphire - SB60(3) Starphire	0.29	1.65	0.27	1.55	63%	15%	11%	33%	42%	40%	25%	0.46	1.38
Satin(2) Starphire - SB60(3) Starphire	0.29	1.65	0.27	1.55	68%	14%	11%	36%	43%	40%	27%	0.48	1.42
SB60(2) Starphire - Opaque(3) Starphire	0.29	1.65	0.27	1.55	73%	10%	14%	39%	40%	40%	29%	0.42	1.77
SB60(2) Starphire - Velour(3) Starphire	0.29	1.65	0.27	1.55	73%	10%	15%	39%	40%	42%	29%	0.42	1.77
SB60(2) Starphire - Satin(3) Starphire	0.29	1.65	0.27	1.55	74%	10%	14%	39%	40%	43%	30%	0.42	1.77
SB60(2) Starphire - Opaque(4) Starphire	0.29	1.66	0.27	1.55	71%	11%	15%	37%	40%	40%	28%	0.41	1.72
SB60(2) Starphire - Velour(4) Starphire	0.29	1.66	0.27	1.55	70%	11%	15%	37%	40%	42%	28%	0.41	1.72
SB60(2) Starphire - Satin(4) Starphire	0.29	1.65	0.27	1.55	74%	11%	14%	39%	40%	43%	29%	0.42	1.78

#### NOTES

\* Figures may vary due to manufacturing tolerances. All tabulated data per July 2024 NFRC Simulation Manual using the LBNL's Window v7.8.71.05,2 software.

\* Transmittance and reflectance values based on spectrophotometric measurements and energy distribution of solar radiation.

\* Solar Heat Gain Coefficient (SHGC) represents the solar heat gain through the glass relative to the incident solar radiation. It is equal to 86% of the shading coefficient. Shading coefficient is the ratio of the total amount of solar energy that passes through a glass relative to 1/8-in. (3,0 mm) thick clear glass under the same design conditions. It includes both solar energy transmitted directly plus any absorbed solar energy re-radiated and converted. Lower shading coefficient values indicate better performance in reducing summer heat gain. Shading coefficients at outdoor air temperature of 89° F (32° C), outdoor air velocity of 7,5 mph (3,4 m/s), indoor air temperature of 75° F (24° C), indoor air velocity of 0 mph (0 m/s) and solar intensity of 248 BTU /hour/square foot (783 w/m2).

\* Light to Solar Gain (LSG) ratio is the ratio of visible light transmittance to solar heat gain coefficient.

\* Values are for indication purposes only and are subject to variation according to conditions of measurement, manufacture and/or application.

March 2025

#### Walker Glass Company Ltd.

PUBL-VEM-038A (2503)

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PUBL-VEM-038A (2503)



# **TABLE B2 ACID-ETCHED GLASS** DAYLIGHT DIFFUSION PROPERTIES

#### Test/Standard: ASTM D1003-13

Acid-etched Finish	Glass Substrate	Thickness mm (in)	Total Luminous Transmittance	Diffuse Transmittance	Haze
Opaque	Clear	6mm (1/4")	82.50%	75.09%	90.73%
Velour	Clear	6mm (1/4")	88.44%	79.00%	89.30%
Satin	Clear	6mm (1/4")	72.75%	32.66%	44.89%
Satinlite	Clear	6mm (1/4")	75.41%	9.73%	12.90%

Total Luminous Transmittance is the ratio of transmitted light to the incident light and is influenced by the absorption and reflection properties.

Diffuse Transmittance is the portion of light that is scattered or diffused by the glass surface.

Haze is the percentage of light which in passing through deviates from the incident beam greater than 2.5 degrees on the average. Haze is equal to the diffuse transmittance divided by the total luminous transmittance.

June 2014