

Thermal Performance Data Harvey Replacement Windows & Patio Doors



U-Factor in accordance with NFRC-100-2004, based on whole window value.

To calculate R-value, divide 1 by the U-Factor (example: 1 div. by .35 = 2.86 R-value). Test results subject to change due to periodic re-testing.

Window	Glazing	U-Factor	SHGC	Visible Light Transmittance	ENERGY STAR® Compliance
Classic Double Hung – Welded sash & frame	Clear	0.48	0.57	0.61	---
	Low-E	0.35*	0.30	0.54	All Zones
	Low-E/Argon	0.32	0.30	0.54	All Zones
	2X Low-E/Argon	0.31	0.28	0.48	All Zones
	Clear w/Contour Grid	0.48	0.51	0.55	---
	Low-E w/Contour Grid	0.35	0.27	0.48	All Zones
	Low-E/Argon w/Contour Grid	0.32	0.27	0.48	All Zones
	2X Low-E/Argon w/Contour Grid	0.31	0.25	0.43	All Zones
Slimline Double Hung – Welded sash & frame	Clear	0.49	0.59	0.63	---
	Low-E	0.36	0.30	0.52	NC, SC, S
	Low-E/Argon	0.32	0.30	0.52	All Zones
	2X Low-E/Argon	0.32	0.28	0.50	All Zones
	Clear w/Contour Grid	0.49	0.53	0.56	---
	Low-E w/Contour Grid	0.36	0.27	0.50	NC, SC, S
	Low-E/Argon w/Contour Grid	0.32	0.27	0.50	All Zones
	2X Low-E/Argon w/Contour Grid	0.32	0.26	0.44	All Zones
Slimline Single Hung – Welded sash & frame	Clear	0.49	0.59	0.63	---
	Low-E	0.36	0.30	0.52	NC, SC, S
	Low-E/Argon	0.32	0.30	0.52	All Zones
	2X Low-E/Argon	0.32	0.28	0.50	All Zones
	Clear w/Contour Grid	0.49	0.53	0.56	---
	Low-E w/Contour Grid	0.36	0.27	0.50	NC, SC, S
	Low-E/Argon w/Contour Grid	0.32	0.27	0.50	All Zones
	2X Low-E/Argon w/Contour Grid	0.32	0.26	0.44	All Zones
Signature Double Hung – Mechanical sash & frame	Clear	0.50	0.56	0.60	---
	Low-E	0.37	0.29	0.53	NC, SC, S
	Low-E/Argon	0.34	0.29	0.53	All Zones
	2X Low-E/Argon	0.33	0.27	0.48	All Zones
	Clear w/Contour Grid	0.50	0.50	0.53	---
	Low-E w/Contour Grid	0.37	0.26	0.47	NC, SC, S
	Low-E/Argon w/Contour Grid	0.34	0.26	0.47	All Zones
	2X Low-E/Argon w/Contour Grid	0.33	0.25	0.42	All Zones
Vinyl Awning	Clear	0.45	0.51	0.55	---
	Low-E	0.34	0.26	0.48	All Zones
	Low-E/Argon	0.31	0.26	0.48	All Zones
	2X Low-E/Argon	0.31	0.25	0.43	All Zones
	Clear w/Contour Grid	0.45	0.46	0.49	---
	Low-E w/Contour Grid	0.34	0.24	0.44	All Zones
	Low-E/Argon w/Contour Grid	0.31	0.24	0.44	All Zones
	2X Low-E/Argon w/Contour Grid	0.31	0.22	0.39	All Zones
Vinyl Casement	Clear	0.45	0.51	0.55	---
	Low-E	0.34	0.26	0.48	All Zones
	Low-E/Argon	0.31	0.26	0.48	All Zones
	2X Low-E/Argon	0.31	0.25	0.43	All Zones
	Clear w/Contour Grid	0.45	0.46	0.49	---
	Low-E w/Contour Grid	0.34	0.24	0.44	All Zones
	Low-E/Argon w/Contour Grid	0.31	0.24	0.44	All Zones
	2X Low-E/Argon w/Contour Grid	0.31	0.22	0.39	All Zones

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U-Factor in accordance with NFRC-100-2004, based on whole window value.

To calculate R-value, divide 1 by the U-Factor (example: 1 div. by .35 = 2.86 R-value). Test results subject to change due to periodic re-testing.

Window	Glazing	U-Factor	SHGC	Visible Light Transmittance	ENERGY STAR® Compliance
Vinyl Picture Window	Clear	0.45	0.61	0.65	---
	Low-E	0.31	0.31	0.58	All Zones
	Low-E/Argon	0.27	0.31	0.58	All Zones
	2X Low-E/Argon	0.26	0.29	0.51	All Zones
	Clear w/Contour Grid	0.45	0.54	0.58	---
	Low-E w/Contour Grid	0.31	0.28	0.52	All Zones
	Low-E/Argon w/Contour Grid	0.27	0.28	0.52	All Zones
	2X Low-E/Argon w/Contour Grid	0.26	0.26	0.46	All Zones
Vinyl Designer Shape	Clear	0.49	0.66	0.70	---
	Low-E	0.33	0.34	0.61	All Zones
	Low-E/Argon	0.30	0.34	0.61	All Zones
	2X Low-E/Argon	0.28	0.22	0.36	All Zones
	Clear w/Contour Grid	0.49	0.60	0.63	---
	Low-E w/Contour Grid	0.33	0.31	0.55	All Zones
	Low-E/Argon w/Contour Grid	0.30	0.31	0.55	All Zones
	2X Low-E/Argon w/Contour Grid	0.28	0.20	0.33	All Zones
Vinyl Rolling Window	Clear	0.50	0.61	0.64	---
	Low-E	0.37	0.31	0.57	NC, SC, S
	Low-E/Argon	0.33	0.31	0.57	All Zones
	2X Low-E/Argon	0.33	0.29	0.51	All Zones
	Clear w/Contour Grid	0.50	0.55	0.57	---
	Low-E w/Contour Grid	0.37	0.28	0.51	NC, SC, S
	Low-E/Argon w/Contour Grid	0.33	0.28	0.51	All Zones
	2X Low-E/Argon w/Contour Grid	0.33	0.26	0.45	All Zones
Vinyl Hopper Window	Clear	0.49	0.53	0.56	---
	Low-E	0.37	0.28	0.50	NC, SC, S
	Low-E/Argon	0.34	0.28	0.50	All Zones
	2X Low-E/Argon	0.34	0.22	0.29	All Zones
	Clear w/Contour Grid	0.49	0.48	0.51	---
	Low-E w/Contour Grid	0.37	0.25	0.45	NC, SC, S
	Low-E/Argon w/Contour Grid	0.34	0.25	0.45	All Zones
	2X Low-E/Argon w/Contour Grid	0.34	0.20	0.27	All Zones
Vinyl Patio Door	Clear	0.50	0.58	0.59	---
	Low-E	0.37	0.30	0.52	NC, SC, S
	Low-E/Argon	0.34	0.30	0.52	All Zones
	2X Low-E/Argon	0.33	0.28	0.45	All Zones
	Clear w/Contour Grid	0.50	0.52	0.53	---
	Low-E w/Contour Grid	0.37	0.27	0.46	NC, SC, S
	Low-E/Argon w/Contour Grid	0.34	0.27	0.46	All Zones
	2X Low-E/Argon w/Contour Grid	0.33	0.26	0.40	All Zones
Vigilance Impact-Resistant Double Hung	Clear w/Contour Grid	0.46	0.46	0.51	---
	Low-E w/Contour Grid	0.35	0.25	0.45	All Zones
	Low-E/Argon w/Contour Grid	0.31	0.25	0.45	All Zones
	Low-E/Krypton w/Contour Grid	0.29	0.25	0.45	All Zones
Majesty Double Hung	Low-E/Krypton	0.32	0.28	0.51	All Zones
	Low-E/Krypton w/Contour Grid	0.33	0.25	0.46	All Zones
Majesty Picture Window	Low-E/Krypton	0.29	0.29	0.54	All Zones
	Low-E/Krypton w/Contour Grid	0.30	0.26	0.48	All Zones
Majesty Casement	Low-E/Krypton	0.35	0.28	0.51	All Zones
	Low-E/Krypton w/Contour Grid	0.35	0.25	0.46	All Zones
Majesty Fixed Casement	Low-E/Krypton	0.31	0.31	0.58	All Zones
	Low-E/Krypton w/Contour Grid	0.31	0.28	0.52	All Zones
Majesty Awning	Low-E/Krypton	0.35	0.28	0.51	All Zones
	Low-E/Krypton w/Contour Grid	0.35	0.25	0.46	All Zones

Thermal Performance Data Harvey New Construction Windows & Patio Doors



U-Factor in accordance with NFRC-100-2004, based on whole window value.

To calculate R-value, divide 1 by the U-Factor (example: 1 div. by .35 = 2.86 R-value). Test results subject to change due to periodic re-testing.

Window	Glazing	U-Factor	SHGC	Visible Light Transmittance	ENERGY STAR® Compliance
Vicon Double Hung – Welded sash & frame	Clear	0.49	0.59	0.63	---
	Low-E	0.36	0.30	0.52	NC, SC, S
	Low-E/Argon	0.32	0.30	0.52	All Zones
	2X Low-E/Argon	0.32	0.28	0.50	All Zones
	Clear w/Contour Grid	0.49	0.53	0.56	---
	Low-E w/Contour Grid	0.36	0.27	0.50	NC, SC, S
	Low-E/Argon w/Contour Grid	0.32	0.27	0.50	All Zones
	2X Low-E/Argon w/Contour Grid	0.32	0.26	0.44	All Zones
Vicon Classic Double Hung – Welded sash & frame	Clear	0.48	0.57	0.61	---
	Low-E	0.35*	0.30	0.54	All Zones
	Low-E/Argon	0.32	0.30	0.54	All Zones
	2X Low-E/Argon	0.31	0.28	0.48	All Zones
	Clear w/Contour Grid	0.48	0.51	0.55	---
	Low-E w/Contour Grid	0.35	0.27	0.48	All Zones
	Low-E/Argon w/Contour Grid	0.32	0.27	0.48	All Zones
	2X Low-E/Argon w/Contour Grid	0.31	0.25	0.43	All Zones
Vicon Single Hung – Welded sash & frame	Clear	0.49	0.59	0.63	---
	Low-E	0.36	0.30	0.52	NC, SC, S
	Low-E/Argon	0.32	0.30	0.52	All Zones
	2X Low-E/Argon	0.32	0.28	0.50	All Zones
	Clear w/Contour Grid	0.49	0.53	0.56	---
	Low-E w/Contour Grid	0.36	0.27	0.50	NC, SC, S
	Low-E/Argon w/Contour Grid	0.32	0.27	0.50	All Zones
	2X Low-E/Argon w/Contour Grid	0.32	0.26	0.44	All Zones
Vicon Awning	Clear	0.45	0.51	0.55	---
	Low-E	0.34	0.26	0.48	All Zones
	Low-E/Argon	0.31	0.26	0.48	All Zones
	2X Low-E/Argon	0.31	0.25	0.43	All Zones
	Clear w/Contour Grid	0.45	0.46	0.49	---
	Low-E w/Contour Grid	0.34	0.24	0.44	All Zones
	Low-E/Argon w/Contour Grid	0.31	0.24	0.44	All Zones
	2X Low-E/Argon w/Contour Grid	0.31	0.22	0.39	All Zones
Vicon Casement	Clear	0.45	0.51	0.55	---
	Low-E	0.34	0.26	0.48	All Zones
	Low-E/Argon	0.31	0.26	0.48	All Zones
	2X Low-E/Argon	0.31	0.25	0.43	All Zones
	Clear w/Contour Grid	0.45	0.46	0.49	---
	Low-E w/Contour Grid	0.34	0.24	0.44	All Zones
	Low-E/Argon w/Contour Grid	0.31	0.24	0.44	All Zones
	2X Low-E/Argon w/Contour Grid	0.31	0.22	0.39	All Zones
Vicon Picture Window	Clear	0.45	0.61	0.65	---
	Low-E	0.31	0.31	0.58	All Zones
	Low-E/Argon	0.27	0.31	0.58	All Zones
	2X Low-E/Argon	0.26	0.29	0.51	All Zones
	Clear w/Contour Grid	0.45	0.54	0.58	---
	Low-E w/Contour Grid	0.31	0.28	0.52	All Zones
	Low-E/Argon w/Contour Grid	0.27	0.28	0.52	All Zones
	2X Low-E/Argon w/Contour Grid	0.26	0.26	0.46	All Zones

N=Northern, NC=North Central,
SC=South Central, S=South

Rev. 1/07

Thermal Performance Data

Harvey New Construction Windows & Patio Doors



U-Factor in accordance with NFRC-100-2004, based on whole window value.

To calculate R-value, divide 1 by the U-Factor (example: 1 div. by .35 = 2.86 R-value). Test results subject to change due to periodic re-resting.

Window	Glazing	U-Factor	SHGC	Visible Light Transmittance	ENERGY STAR® Compliance
Vicon Designer Shape	Clear	0.49	0.66	0.70	---
	Low-E	0.33	0.34	0.61	All Zones
	Low-E/Argon	0.30	0.34	0.61	All Zones
	2X Low-E/Argon	0.28	0.22	0.36	All Zones
	Clear w/Contour Grid	0.49	0.60	0.63	---
	Low-E w/Contour Grid	0.33	0.31	0.55	All Zones
	Low-E/Argon w/Contour Grid	0.30	0.31	0.55	All Zones
	2X Low-E/Argon w/Contour Grid	0.28	0.20	0.33	All Zones
Vicon Rolling Window	Clear	0.50	0.61	0.64	---
	Low-E	0.37	0.31	0.57	NC, SC, S
	Low-E/Argon	0.33	0.31	0.57	All Zones
	2X Low-E/Argon	0.33	0.29	0.51	All Zones
	Clear w/Contour Grid	0.50	0.55	0.57	---
	Low-E w/Contour Grid	0.37	0.28	0.51	NC, SC, S
	Low-E/Argon w/Contour Grid	0.33	0.28	0.51	All Zones
	2X Low-E/Argon w/Contour Grid	0.33	0.26	0.45	All Zones
Vicon Hopper Window	Clear	0.49	0.53	0.56	---
	Low-E	0.37	0.28	0.50	NC, SC, S
	Low-E/Argon	0.34	0.28	0.50	All Zones
	2X Low-E/Argon	0.34	0.22	0.29	All Zones
	Clear w/Contour Grid	0.49	0.48	0.51	---
	Low-E w/Contour Grid	0.37	0.25	0.45	NC, SC, S
	Low-E/Argon w/Contour Grid	0.34	0.25	0.45	All Zones
	2X Low-E/Argon w/Contour Grid	0.34	0.20	0.27	All Zones
Vicon Patio Door	Clear	0.50	0.58	0.59	---
	Low-E	0.37	0.30	0.52	NC, SC, S
	Low-E/Argon	0.34	0.30	0.52	All Zones
	2X Low-E/Argon	0.33	0.28	0.45	All Zones
	Clear w/Contour Grid	0.50	0.52	0.53	---
	Low-E w/Contour Grid	0.37	0.27	0.46	NC, SC, S
	Low-E/Argon w/Contour Grid	0.34	0.27	0.46	All Zones
	2X Low-E/Argon w/Contour Grid	0.33	0.26	0.40	All Zones
Vigilance Impact-Resistant Double Hung	Clear w/Contour Grid	0.46	0.46	0.51	---
	Low-E w/Contour Grid	0.35	0.25	0.45	All Zones
	Low-E/Argon w/Contour Grid	0.31	0.25	0.45	All Zones
	Low-E/Krypton w/Contour Grid	0.29	0.25	0.45	All Zones

Thermal Performance Data Harvey Acoustic Windows & Patio Doors



U-Factor in accordance with NFRC-100-2004, based on whole window value.

To calculate R-value, divide 1 by the U-Factor (example: 1 div. by .35 = 2.86 R-value). Test results subject to change due to periodic re-testing.

Window	Glazing	U-Factor	SHGC	Visible Light Transmittance	ENERGY STAR® Compliance
Classic Acoustic Double Hung – STC40	Clear	0.33	0.48	0.51	N, NC
	Low-E	0.25	0.29	0.44	All Zones
	Low-E/Argon	0.24	0.29	0.44	All Zones
	Clear w/Contour Grid	0.33	0.43	0.46	All Zones
	Low-E w/Contour Grid	0.25	0.26	0.40	All Zones
	Low-E/Argon w/Contour Grid	0.24	0.26	0.40	All Zones
Classic Acoustic Double Hung – STC44	Clear	0.33	0.48	0.51	N, NC
	Low-E	0.25	0.29	0.44	All Zones
	Low-E/Argon	0.24	0.29	0.44	All Zones
	Clear w/Contour Grid	0.33	0.43	0.46	All Zones
	Low-E w/Contour Grid	0.25	0.26	0.40	All Zones
	Low-E/Argon w/Contour Grid	0.24	0.26	0.40	All Zones
Acoustic Picture Window – STC40	Clear	0.31	0.53	0.58	N, NC
	Low-E	0.23	0.31	0.52	All Zones
	Low-E/Argon	0.21	0.30	52.00	All Zones
	2X Low-E/Argon	0.21	0.29	0.46	All Zones
	Clear w/Contour Grid	0.31	0.48	0.52	All Zones
	Low-E w/Contour Grid	0.23	0.28	0.46	All Zones
	Low-E/Argon w/Contour Grid	0.21	0.27	0.46	All Zones
	2X Low-E/Argon w/Contour Grid	0.21	0.26	0.41	All Zones
Acoustic Picture Window – STC44	Clear	0.32	0.55	0.58	N, NC
	Low-E	0.24	0.33	0.51	All Zones
	Low-E/Argon	0.22	0.33	0.51	All Zones
	Clear w/Contour Grid	0.32	0.49	0.52	All Zones
	Low-E w/Contour Grid	0.24	0.30	0.46	All Zones
	Low-E/Argon w/Contour Grid	0.22	0.30	0.46	All Zones
Acoustic Rolling Window (2- and 3-Lite) – STC40 and 44	Clear	0.34	0.49	0.53	N, NC
	Low-E	0.26	0.33	0.44	All Zones
	Low-E/Argon	0.25	0.33	0.44	All Zones
	Clear w/Contour Grid	0.34	0.44	0.48	All Zones
	Low-E w/Contour Grid	0.26	0.27	0.40	All Zones
	Low-E/Argon w/Contour Grid	0.25	0.27	0.40	All Zones
Acoustic Casement Window – STC40	Clear	0.31	0.45	0.50	N, NC
	Low-E	0.25	0.24	0.44	All Zones
	Low-E/Argon	0.24	0.24	0.44	All Zones
	2X Low-E/Argon	0.23	0.23	0.39	All Zones
	Clear w/Contour Grid	0.31	0.41	0.45	All Zones
	Low-E w/Contour Grid	0.25	0.22	0.40	All Zones
	Low-E/Argon w/Contour Grid	0.24	0.22	0.40	All Zones
	2X Low-E/Argon w/Contour Grid	0.23	0.21	0.36	All Zones

ENERGY STAR Information

Windows and doors with .35 U-Factor or lower are ENERGY STAR qualified in New England, NY and PA. Visit www.energystar.gov for details.

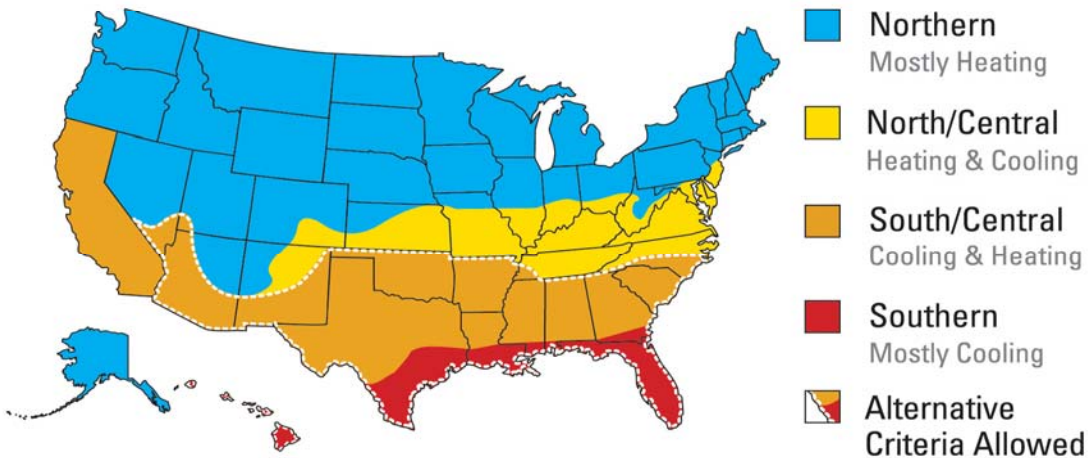
The use of tempered Low-E glass may effect ENERGY STAR qualification in your region.



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ENERGY STAR

ENERGY STAR® for Windows, Doors, and Skylights

CLIMATE ZONE MAP



Windows & Doors

Climate Zone	U-Factor ¹	SHGC ²	
Northern	≤ 0.35	Any	
North/Central	≤ 0.40	≤ 0.55	
South/Central	≤ 0.40	≤ 0.40	Prescriptive
	≤ 0.41	≤ 0.36	Equivalent Performance (Excluding CA)
	≤ 0.42	≤ 0.31	
	≤ 0.43	≤ 0.24	
	Products meeting these criteria also qualify in the Southern zone.		
Southern	≤ 0.65	≤ 0.40	Prescriptive
	≤ 0.66	≤ 0.39	Equivalent Performance
	≤ 0.67		
	≤ 0.68		
	≤ 0.69		
	≤ 0.70		
	≤ 0.71		
	≤ 0.72		
	≤ 0.73		
	≤ 0.74		
≤ 0.75			

Skylights

Climate Zone	U-Factor ¹		SHGC ²
	2001 NFRC rated at 20° ³	RES97 rated at 90° ⁴	
Northern	≤ 0.60	≤ 0.45	Any
North/Central	≤ 0.60	≤ 0.45	≤ 0.40
South/Central	≤ 0.60	≤ 0.45	≤ 0.40
Southern	≤ 0.75	≤ 0.75	≤ 0.40

¹ Btu/h.ft².°F

² Fraction of incident solar radiation.

³ U-Factor qualification criteria based on 2001 NFRC simulation and certification procedures that rate skylights at a 20-degree angle. Although reported U-Factor is higher than RES97 rated products, energy performance at the ENERGY STAR minimum qualifying level is equivalent.

⁴ NFRC certification using the 1997 NFRC procedures for residential windows (RES 97) that rated skylights at a 90-degree angle. Skylights rated under this procedure may be present in the marketplace until March 31, 2008. NFRC labels for products using this procedure state: "RES97 rated at 90 degrees."