



Thermal Performance Data

*ENERGY STAR performance is based on Residential NFRC sizes:		
Climate	U-Value	SHGC
N=Northern	0.30 and below	any
N=Northern	=0.31	0.35 and below
N=Northern	=0.32	0.40 and below
NC=North Central	0.32 and below	0.40 and below
SC=South Central	0.35 and below	0.30 and below
S=Southern	0.60 and below	0.27 and below


Manchester/Advantedge Double Hung

Product Type	Glazing Options			Residential NFRC 48" x 60"				ENERGY STAR Energy Star
	Glazing Thickness	Spacer	Glazing Type	U-Value	R-Value	Solar Heat Gain Co-Efficient	Visible Light Transmittance	
Without Grilles	DSB	Duraseal	Insul Low E	0.33	3.03	0.29	0.54	SC
	DSB	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.29	0.54	N,NC,SC
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.31	3.23	0.28	0.53	N,NC,SC
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.35	2.86	0.29	0.53	SC
With Grilles (Standard 0.75")	DSB	Duraseal	Insul Low E	0.33	3.03	0.26	0.48	SC,S
	3/16"	Duraseal	Insul Low E	0.38	2.63	0.26	0.47	S
	1/4"	Duraseal	Insul Low E	0.40	2.50	0.26	0.47	S
	DSB	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.26	0.48	N,NC,SC,S
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.33	3.03	0.26	0.47	SC,S
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.39	2.56	0.26	0.47	S


Manchester/Advantedge Single Hung

Product Type	Glazing Options			Residential NFRC 48" x 60"				ENERGY STAR Energy Star
	Glazing Thickness	Spacer	Glazing Type	U-Value	R-Value	Solar Heat Gain Co-Efficient	Visible Light Transmittance	
Without Grilles	DSB	Duraseal	Insul Low E	0.34	2.94	0.29	0.55	SC
	DSB	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.29	0.55	N,NC,SC
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.32	3.13	0.29	0.54	N,NC,SC
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.35	2.86	0.29	0.53	SC
With Grilles (Standard 0.75")	DSB	Duraseal	Insul Low E	0.34	2.94	0.26	0.49	SC,S
	3/16"	Duraseal	Insul Low E	0.39	2.56	0.26	0.48	S
	1/4"	Duraseal	Insul Low E	0.45	2.22	0.27	0.48	S
	DSB	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.26	0.49	N,NC,SC,S
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.34	2.94	0.26	0.48	SC,S
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.39	2.56	0.26	0.48	S


Manchester/Advantedge Slider

Product Type	Glazing Options			Residential NFRC 60" x 48"				
	Glazing Thickness	Spacer	Glazing Type	U-Value	R-Value	Solar Heat Gain Co-Efficient	Visible Light Transmittance	ENERGY STAR Energy Star
Without Grilles	DSB	Duraseal	Insul Low E	0.34	2.94	0.29	0.55	SC
	DSB	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.29	0.55	N,NC,SC
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.32	3.13	0.29	0.54	N,NC,SC
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.35	2.86	0.29	0.53	SC
With Grilles (Standard 0.75")	DSB	Duraseal	Insul Low E	0.34	2.94	0.26	0.49	SC,S
	3/16"	Duraseal	Insul Low E	0.39	2.56	0.26	0.48	S
	1/4"	Duraseal	Insul Low E	0.44	2.27	0.27	0.48	S
	DSB	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.26	0.49	N,NC,SC,S
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.34	2.94	0.26	0.48	SC,S
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.39	2.56	0.26	0.48	S


Manchester/Advantedge Awning

Product Type	Glazing Options			Residential NFRC 60" x 24"				
	Glazing Thickness	Spacer	Glazing Type	U-Value	R-Value	Solar Heat Gain Co-Efficient	Visible Light Transmittance	ENERGY STAR Energy Star
Without Grilles	DSB	Duraseal	Insul Low E	0.30	3.33	0.24	0.45	N,NC,SC,S
	3/16"	Duraseal	Insul Low E	0.32	3.13	0.24	0.44	N,NC,SC,S
	1/4"	Duraseal	Insul Low E	0.36	2.78	0.24	0.44	S
	DSB	Duraseal	Insul Low E w/Argon Gas	0.27	3.70	0.24	0.45	N,NC,SC,S
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.29	3.45	0.24	0.44	N,NC,SC,S
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.31	3.23	0.24	0.44	N,NC,SC,S
With Grilles (Standard 0.75")	DSB	Duraseal	Insul Low E	0.30	3.33	0.22	0.41	N,NC,SC,S
	3/16"	Duraseal	Insul Low E	0.34	2.94	0.22	0.40	SC,S
	1/4"	Duraseal	Insul Low E	0.39	2.56	0.22	0.39	S
	DSB	Duraseal	Insul Low E w/Argon Gas	0.27	3.70	0.22	0.41	N,NC,SC,S
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.22	0.40	N,NC,SC,S
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.34	2.94	0.22	0.39	SC,S


Manchester/Advantedge Casement

Product Type	Glazing Options			Residential NFRC 24" x 60"				
	Glazing Thickness	Spacer	Glazing Type	U-Value	R-Value	Solar Heat Gain Co-Efficient	Visible Light Transmittance	ENERGY STAR Energy Star
Without Grilles	DSB	Duraseal	Insul Low E	0.30	3.33	0.24	0.45	N,NC,SC,S
	3/16"	Duraseal	Insul Low E	0.33	3.03	0.24	0.44	SC,S
	1/4"	Duraseal	Insul Low E	0.36	2.78	0.25	0.44	S
	DSB	Duraseal	Insul Low E w/Argon Gas	0.28	3.57	0.24	0.45	N,NC,SC,S
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.29	3.45	0.24	0.44	N,NC,SC,S
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.32	3.13	0.24	0.44	N,NC,SC,S
With Grilles (Standard 0.75")	DSB	Duraseal	Insul Low E	0.30	3.33	0.22	0.41	N,NC,SC,S
	3/16"	Duraseal	Insul Low E	0.34	2.94	0.22	0.40	SC,S
	1/4"	Duraseal	Insul Low E	0.39	2.56	0.22	0.39	S
	DSB	Duraseal	Insul Low E w/Argon Gas	0.28	3.57	0.22	0.41	N,NC,SC,S
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.22	0.40	N,NC,SC,S
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.35	2.86	0.22	0.39	SC,S


Manchester/Advantedge Casement Picture Window

Product Type	Glazing Options			Residential NFRC 48" x 60"				
	Glazing Thickness	Spacer	Glazing Type	U-Value	R-Value	Solar Heat Gain Co-Efficient	Visible Light Transmittance	ENERGY STAR Energy Star
Without Grilles	DSB	Duraseal	Insul Low E	0.31	3.23	0.29	0.54	N,NC,SC
	3/16"	Duraseal	Insul Low E	0.34	2.94	0.29	0.53	SC
	DSB	Duraseal	Insul Low E w/Argon Gas	0.27	3.70	0.28	0.54	N,NC,SC
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.29	3.45	0.28	0.53	N,NC,SC
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.32	3.13	0.28	0.52	N,NC,SC
With Grilles (Standard 0.75")	DSB	Duraseal	Insul Low E	0.31	3.23	0.26	0.48	N,NC,SC,S
	3/16"	Duraseal	Insul Low E	0.36	2.78	0.26	0.47	S
	1/4"	Duraseal	Insul Low E	0.42	2.38	0.26	0.46	S
	DSB	Duraseal	Insul Low E w/Argon Gas	0.27	3.70	0.26	0.48	N,NC,SC,S
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.31	3.23	0.26	0.47	N,NC,SC,S
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.36	2.78	0.26	0.46	S

Manchester/Advantedge Picture Window

Product Type	Glazing Options			Residential NFRC 48" x 60"					
	Glazing Thickness	Spacer	Glazing Type	U-Value	R-Value	Solar Heat Gain Co-Efficient	Visible Light Transmittance	ENERGY STAR Energy Star	
Without Grilles	DSB	Duraseal	Insul Low E	0.32	3.13	0.30	0.57	N,NC,SC	
	3/16"	Duraseal	Insul Low E	0.34	2.94	0.30	0.56	SC	
	DSB	Duraseal	Insul Low E w/Argon Gas	0.28	3.57	0.30	0.57	N,NC,SC	
	3/16"	Duralite	Insul Low E w/Argon Gas	0.30	3.33	0.27	0.5	N,NC,SC,S	
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.33	3.03	0.30	0.55	SC	
With Grilles (Standard 0.75")	DSB	Duraseal	Insul Low E	0.32	3.13	0.27	0.51	N,NC,SC,S	
	DSB	Duraseal	Insul Low E w/Argon Gas	0.28	3.57	0.27	0.51	N,NC,SC,S	
	3/16"	Duralite	Insul Low E w/Argon Gas	0.30	3.33	0.24	0.44	N,NC,SC,S	
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.37	2.70	0.27	0.49	S	

Vinyl Glide Sliding Glass Door

Product Type	Glazing Options			Residential NFRC 80" x 80"					
	Glazing Thickness	Spacer	Glazing Type	U-Value	R-Value	Solar Heat Gain Co-Efficient	Visible Light Transmittance	ENERGY STAR Energy Star	
Without Grilles	DSB	Duraseal	Insul Low E	0.34	2.94	0.28	0.53	SC	
	3/16"	Duraseal	Insul Low E	0.33	3.03	0.28	0.52	SC	
	DSB	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.28	0.53	N,NC,SC	
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.28	0.52	N,NC,SC	
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.31	3.23	0.28	0.52	N,NC,SC	
With Grilles (Standard 0.75")	DSB	Duraseal	Insul Low E	0.34	2.94	0.25	0.46	SC,S	
	3/16"	Duraseal	Insul Low E	0.33	3.03	0.25	0.46	SC,S	
	1/4"	Duraseal	Insul Low E	0.38	2.63	0.25	0.45	S	
	DSB	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.25	0.46	N,NC,SC,S	
	3/16"	Duraseal	Insul Low E w/Argon Gas	0.30	3.33	0.24	0.46	N,NC,SC,S	
	1/4"	Duraseal	Insul Low E w/Argon Gas	0.34	2.94	0.25	0.45	SC,S	