



Product Code	Transmittance		Reflectance		U-Value		Shading Coefficient	SHGC	LSG	Silk-screen
	Visible	U-V	Vis-Out	Vis-In	Winter	Summer				
VRE 1-38	35%	<1%	44%	20%	0.29	0.26	0.26	0.23	1.50	-
VRE 1-46	41%	<1%	34%	14%	0.29	0.26	0.32	0.28	1.46	-
VRE 1-54	46%	<1%	31%	14%	0.30	0.27	0.35	0.30	1.52	-
VRE 1-59	50%	<1%	30%	18%	0.29	0.27	0.38	0.33	1.53	-
VRE 1-67	57%	<1%	29%	23%	0.29	0.26	0.42	0.37	1.54	-
VRE 2-38	29%	<1%	32%	19%	0.29	0.26	0.22	0.19	1.53	-
VRE 2-46	35%	<1%	25%	13%	0.29	0.26	0.26	0.22	1.57	-
VRE 2-54	38%	<1%	24%	14%	0.30	0.27	0.28	0.24	1.60	-
VRE 2-59	42%	<1%	23%	17%	0.29	0.27	0.30	0.26	1.63	-
VRE 2-67	48%	<1%	22%	22%	0.29	0.26	0.32	0.28	1.71	-
VRE 3-46	21%	<1%	12%	13%	0.29	0.26	0.22	0.19	1.08	-
VRE 3-54	23%	<1%	11%	14%	0.30	0.27	0.24	0.21	1.09	-
VRE 3-59	25%	<1%	11%	17%	0.29	0.27	0.25	0.22	1.15	-
VRE 3-67	29%	<1%	10%	22%	0.29	0.26	0.28	0.24	1.19	-
VRE 4-38	21%	<1%	19%	19%	0.29	0.26	0.20	0.18	1.16	-
VRE 4-46	25%	<1%	15%	13%	0.29	0.26	0.24	0.21	1.18	-
VRE 4-54	27%	<1%	14%	14%	0.30	0.27	0.26	0.22	1.25	-
VRE 4-59	30%	<1%	14%	17%	0.29	0.27	0.28	0.24	1.27	-
VRE 4-67	34%	<1%	13%	22%	0.29	0.26	0.31	0.26	1.32	-
VRE 5-38	22%	<1%	20%	19%	0.29	0.26	0.21	0.18	1.21	-
VRE 5-46	26%	<1%	16%	13%	0.29	0.26	0.24	0.21	1.23	-
VRE 5-54	29%	<1%	15%	14%	0.30	0.27	0.26	0.22	1.30	-
VRE 5-59	32%	<1%	15%	17%	0.29	0.27	0.27	0.24	1.32	-
VRE 5-67	36%	<1%	14%	22%	0.29	0.26	0.30	0.26	1.37	-
VRE 6-38	30%	<1%	34%	19%	0.29	0.26	0.23	0.20	1.48	-
VRE 6-46	35%	<1%	26%	13%	0.29	0.26	0.27	0.23	1.53	-
VRE 6-54	39%	<1%	24%	14%	0.30	0.27	0.29	0.25	1.56	-
VRE 6-59	43%	<1%	23%	17%	0.29	0.27	0.31	0.27	1.62	-
VRE 6-67	49%	<1%	22%	22%	0.29	0.26	0.34	0.29	1.68	-
VRE 7-38	27%	<1%	28%	19%	0.29	0.26	0.20	0.17	1.58	-
VRE 7-46	32%	<1%	23%	13%	0.29	0.26	0.23	0.20	1.60	-
VRE 7-54	35%	<1%	21%	14%	0.30	0.27	0.25	0.21	1.69	-
VRE 7-59	39%	<1%	20%	17%	0.29	0.27	0.26	0.22	1.77	-
VRE 7-67	44%	<1%	20%	22%	0.29	0.26	0.28	0.24	1.83	-
VRE 10-38	26%	<1%	27%	19%	0.29	0.26	0.20	0.17	1.53	-



Product Code	Transmittance		Reflectance		U-Value		Shading Coefficient	SHGC	LSG	Silk-screen
	Visible	U-V	Vis-Out	Vis-In	Winter	Summer				
VRE 10-46	31%	<1%	21%	13%	0.29	0.26	0.23	0.19	1.63	-
VRE 10-54	34%	<1%	20%	14%	0.30	0.27	0.24	0.21	1.63	-
VRE 10-59	38%	<1%	19%	17%	0.29	0.27	0.26	0.22	1.72	-
VRE 10-67	43%	<1%	18%	22%	0.29	0.26	0.28	0.24	1.78	-
VE 1-2M	67%	<1%	11%	11%	0.29	0.26	0.43	0.37	1.82	-
VE 1-40	35%	<1%	15%	18%	0.31	0.28	0.31	0.27	1.29	-
VE 1-42	36%	<1%	19%	13%	0.31	0.28	0.36	0.31	1.15	-
VE 1-52	48%	<1%	16%	10%	0.31	0.29	0.45	0.39	1.22	-
VE 1-55	45%	<1%	11%	15%	0.31	0.28	0.39	0.34	1.32	-
VE 1-85	72%	<1%	12%	12%	0.31	0.28	0.61	0.53	1.37	-
VE 2-2M	58%	<1%	9%	10%	0.29	0.26	0.35	0.31	1.86	-
VE 2-40	30%	<1%	12%	17%	0.31	0.28	0.25	0.22	1.38	-
VE 2-42	30%	<1%	15%	13%	0.31	0.28	0.27	0.23	1.30	-
VE 2-52	42%	<1%	12%	10%	0.31	0.29	0.33	0.29	1.43	-
VE 2-55	38%	<1%	10%	14%	0.31	0.28	0.30	0.26	1.47	-
VE 2-85	62%	<1%	10%	11%	0.31	0.28	0.44	0.38	1.64	-
VE 3-2M	33%	<1%	6%	9%	0.29	0.26	0.27	0.24	1.38	-
VE 3-40	18%	<1%	7%	17%	0.31	0.28	0.22	0.19	0.92	-
VE 3-42	18%	<1%	8%	12%	0.31	0.28	0.24	0.21	0.85	-
VE 3-52	24%	<1%	7%	9%	0.31	0.29	0.29	0.25	0.95	-
VE 3-55	22%	<1%	6%	14%	0.31	0.28	0.26	0.22	1.01	-
VE 3-85	36%	<1%	6%	9%	0.31	0.28	0.38	0.33	1.10	-
VE 4-2M	40%	<1%	7%	9%	0.29	0.26	0.30	0.26	1.52	-
VE 4-40	21%	<1%	8%	17%	0.31	0.28	0.24	0.21	0.99	-
VE 4-42	21%	<1%	10%	12%	0.31	0.28	0.26	0.23	0.93	-
VE 4-52	28%	<1%	8%	9%	0.31	0.29	0.32	0.27	1.04	-
VE 4-55	26%	<1%	7%	14%	0.31	0.28	0.28	0.24	1.09	-
VE 4-85	43%	<1%	7%	10%	0.31	0.28	0.42	0.36	1.18	-
VE 5-2M	43%	<1%	7%	9%	0.29	0.26	0.31	0.27	1.59	-
VE 5-40	18%	<1%	8%	17%	0.31	0.28	0.22	0.19	0.92	-
VE 5-42	23%	<1%	10%	12%	0.31	0.28	0.26	0.22	1.02	-
VE 5-52	31%	<1%	9%	9%	0.31	0.29	0.31	0.27	1.13	-
VE 5-55	28%	<1%	7%	14%	0.31	0.28	0.28	0.24	1.17	-
VE 5-85	46%	<1%	7%	10%	0.31	0.28	0.41	0.35	1.31	-
VE 6-2M	57%	<1%	9%	10%	0.29	0.26	0.36	0.31	1.85	-
VE 6-40	30%	<1%	13%	17%	0.31	0.28	0.26	0.22	1.35	-
VE 6-42	31%	<1%	15%	13%	0.31	0.28	0.28	0.24	1.28	-
VE 6-52	41%	<1%	13%	10%	0.31	0.29	0.34	0.29	1.40	-
VE 6-55	38%	<1%	9%	14%	0.31	0.28	0.31	0.27	1.42	-
VE 6-85	62%	<1%	10%	11%	0.31	0.28	0.46	0.40	1.55	-
VE 7-2M	54%	<1%	9%	10%	0.29	0.26	0.32	0.28	1.93	-
VE 7-40	28%	<1%	12%	17%	0.31	0.28	0.23	0.19	1.48	-



Product Code	Transmittance		Reflectance		U-Value		Shading Coefficient	SHGC	LSG	Silk-screen
	Visible	U-V	Vis-Out	Vis-In	Winter	Summer				
VE 7-42	29%	<1%	14%	13%	0.31	0.28	0.24	0.21	1.40	-
VE 7-52	38%	<1%	12%	10%	0.31	0.29	0.29	0.25	1.53	-
VE 7-55	36%	<1%	9%	14%	0.31	0.28	0.26	0.23	1.55	-
VE 7-85	59%	<1%	10%	11%	0.31	0.28	0.38	0.33	1.78	-
VE 10-2M	51%	<1%	8%	10%	0.29	0.26	0.31	0.26	1.95	-
VE 10-40	26%	<1%	10%	17%	0.31	0.28	0.22	0.19	1.37	-
VE 10-42	27%	<1%	13%	12%	0.31	0.28	0.23	0.20	1.35	-
VE 10-52	36%	<1%	11%	10%	0.31	0.29	0.28	0.24	1.49	-
VE 10-55	34%	<1%	8%	14%	0.31	0.28	0.26	0.22	1.53	-
VE 10-85	54%	<1%	9%	11%	0.31	0.28	0.36	0.31	1.75	-
VE 1-2M	47%	<1%	19%	21%	0.29	0.26	0.32	0.28	1.68	40%
VE 1-40	24%	<1%	23%	20%	0.31	0.28	0.24	0.21	1.15	40%
VE 1-42	25%	<1%	25%	16%	0.31	0.28	0.27	0.24	1.03	40%
VE 1-52	33%	<1%	23%	16%	0.31	0.29	0.34	0.29	1.14	40%
VE 1-55	31%	<1%	20%	19%	0.31	0.28	0.30	0.26	1.20	40%
VE 1-85	51%	<1%	20%	24%	0.31	0.28	0.46	0.40	1.27	40%
VE 2-2M	40%	<1%	15%	21%	0.29	0.26	0.27	0.23	1.72	40%
VE 2-40	20%	<1%	17%	20%	0.31	0.28	0.20	0.17	1.19	40%
VE 2-42	21%	<1%	19%	16%	0.31	0.28	0.21	0.18	1.16	40%
VE 2-52	28%	<1%	17%	15%	0.31	0.29	0.25	0.22	1.26	40%
VE 2-55	26%	<1%	15%	19%	0.31	0.28	0.23	0.20	1.31	40%
VE 2-85	43%	<1%	16%	24%	0.31	0.28	0.33	0.28	1.53	40%
VE 3-2M	24%	<1%	8%	21%	0.29	0.26	0.22	0.19	1.25	40%
VE 3-40	12%	<1%	9%	20%	0.31	0.28	0.18	0.16	0.76	40%
VE 3-42	12%	<1%	9%	15%	0.31	0.28	0.20	0.17	0.73	40%
VE 3-52	17%	<1%	9%	15%	0.31	0.29	0.23	0.20	0.83	40%
VE 3-55	16%	<1%	8%	19%	0.31	0.28	0.21	0.18	0.87	40%
VE 4-2M	28%	<1%	10%	21%	0.29	0.26	0.24	0.21	1.35	40%
VE 4-40	15%	<1%	11%	20%	0.31	0.28	0.19	0.17	0.86	40%
VE 4-42	15%	<1%	12%	15%	0.31	0.28	0.21	0.18	0.82	40%
VE 4-52	20%	<1%	11%	15%	0.31	0.29	0.25	0.22	0.90	40%



Product Code	Transmittance		Reflectance		U-Value		Shading Coefficient	SHGC	LSG	Silk-screen
	Visible	U-V	Vis-Out	Vis-In	Winter	Summer				
VE 4-55	19%	<1%	10%	19%	0.31	0.28	0.23	0.20	0.94	40%
VE 4-85	31%	<1%	10%	23%	0.31	0.28	0.33	0.28	1.09	40%
VE 5-2M	30%	<1%	10%	21%	0.29	0.26	0.24	0.21	1.41	40%
VE 5-40	15%	<1%	12%	20%	0.31	0.28	0.19	0.16	0.94	40%
VE 5-42	16%	<1%	16%	24%	0.31	0.28	0.21	0.18	0.87	40%
VE 5-52	21%	<1%	12%	15%	0.31	0.29	0.25	0.21	0.99	40%
VE 5-55	20%	<1%	11%	19%	0.31	0.28	0.22	0.19	1.03	40%
VE 5-85	32%	<1%	11%	23%	0.31	0.28	0.31	0.27	1.18	40%
VE 6-2M	40%	<1%	15%	21%	0.29	0.26	0.28	0.24	1.68	40%
VE 6-40	21%	<1%	18%	20%	0.31	0.28	0.21	0.18	1.15	40%
VE 6-42	21%	<1%	19%	16%	0.31	0.28	0.22	0.19	1.12	40%
VE 6-52	28%	<1%	18%	15%	0.31	0.29	0.27	0.23	1.23	40%
VE 6-55	27%	<1%	16%	19%	0.31	0.28	0.24	0.21	1.27	40%
VE 6-85	44%	<1%	16%	24%	0.31	0.28	0.35	0.30	1.45	40%
VE 7-2M	37%	<1%	14%	21%	0.29	0.26	0.24	0.21	1.74	40%
VE 7-40	19%	<1%	15%	20%	0.31	0.28	0.18	0.15	1.24	40%
VE 7-42	19%	<1%	17%	16%	0.31	0.28	0.19	0.16	1.21	40%
VE 7-52	26%	<1%	16%	15%	0.31	0.29	0.22	0.19	1.35	40%
VE 7-55	24%	<1%	14%	19%	0.31	0.28	0.21	0.18	1.33	40%
VE 7-85	39%	<1%	14%	24%	0.31	0.28	0.28	0.24	1.64	40%
VE 10-2M	35%	<1%	13%	21%	0.29	0.26	0.24	0.21	1.69	40%
VE 10-40	18%	<1%	15%	20%	0.31	0.28	0.18	0.15	1.21	40%
VE 10-42	19%	<1%	16%	16%	0.31	0.28	0.19	0.16	1.16	40%
VE 10-52	25%	<1%	15%	15%	0.31	0.29	0.22	0.19	1.31	40%
VE 10-55	23%	<1%	13%	19%	0.31	0.28	0.21	0.18	1.30	40%
VE 10-85	38%	<1%	13%	24%	0.31	0.28	0.28	0.24	1.59	40%



Product Code	Transmittance		Reflectance		U-Value		Shading Coefficient	SHGC	LSG	Silk-screen
	Visible	U-V	Vis-Out	Vis-In	Winter	Summer				
VE 15-2M	50%	<1%	20%	23%	0.29	0.26	0.34	0.29	1.72	40%
VE 15-40	26%	<1%	18%	34%	0.31	0.28	0.30	0.26	1.00	40%
VE 15-42	26%	<1%	22%	32%	0.31	0.29	0.35	0.30	0.87	40%
VE 15-52	35%	<1%	20%	30%	0.31	0.29	0.44	0.38	0.92	40%
VE 15-55	33%	<1%	15%	33%	0.31	0.28	0.38	0.33	1.01	40%
VE 15-85	53%	<1%	22%	31%	0.31	0.28	0.60	0.52	1.03	40%
VE 1-2M	42%	<1%	22%	24%	0.29	0.26	0.30	0.26	1.62	50%
VE 1-40	22%	<1%	24%	21%	0.31	0.28	0.23	0.19	1.13	50%
VE 1-42	22%	<1%	26%	16%	0.31	0.28	0.25	0.22	1.00	50%
VE 1-52	29%	<1%	25%	17%	0.31	0.29	0.31	0.27	1.09	50%
VE 1-55	28%	<1%	22%	21%	0.31	0.28	0.28	0.24	1.15	50%
VE 1-85	45%	<1%	22%	27%	0.31	0.28	0.42	0.36	1.26	50%
VE 2-2M	35%	<1%	17%	24%	0.29	0.26	0.25	0.21	1.68	50%
VE 2-40	18%	<1%	19%	21%	0.31	0.28	0.19	0.16	1.13	50%
VE 2-42	19%	<1%	20%	16%	0.31	0.28	0.20	0.17	1.09	50%
VE 2-52	25%	<1%	19%	17%	0.31	0.29	0.24	0.20	1.24	50%
VE 2-55	23%	<1%	17%	20%	0.31	0.28	0.22	0.19	1.23	50%
VE 2-85	38%	<1%	17%	27%	0.31	0.28	0.30	0.26	1.47	50%
VE 3-2M	21%	<1%	9%	23%	0.29	0.26	0.21	0.18	1.17	50%
VE 3-40	11%	<1%	9%	21%	0.31	0.28	0.17	0.15	0.72	50%
VE 3-42	11%	<1%	10%	16%	0.31	0.28	0.19	0.16	0.69	50%
VE 3-52	15%	<1%	9%	17%	0.31	0.29	0.22	0.19	0.78	50%
VE 3-55	14%	<1%	9%	20%	0.31	0.29	0.20	0.17	0.82	50%
VE 3-85	23%	<1%	9%	27%	0.31	0.28	0.27	0.24	0.95	50%
VE 4-2M	25%	<1%	11%	24%	0.29	0.26	0.22	0.19	1.33	50%
VE 4-40	13%	<1%	12%	21%	0.31	0.28	0.18	0.16	0.81	50%
VE 4-42	13%	<1%	12%	16%	0.31	0.28	0.20	0.17	0.78	50%
VE 4-52	18%	<1%	12%	17%	0.31	0.29	0.24	0.20	0.89	50%
VE 4-55	17%	<1%	11%	20%	0.31	0.28	0.22	0.19	0.88	50%
VE 4-85	27%	<1%	11%	27%	0.31	0.28	0.30	0.26	1.05	50%



Product Code	Transmittance		Reflectance		U-Value		Shading Coefficient	SHGC	LSG	Silk-screen
	Visible	U-V	Vis-Out	Vis-In	Winter	Summer				
VE 5-2M	26%	<1%	11%	24%	0.29	0.26	0.23	0.19	1.39	50%
VE 5-40	14%	<1%	12%	21%	0.31	0.28	0.18	0.16	0.84	50%
VE 5-42	14%	<1%	13%	16%	0.31	0.28	0.20	0.17	0.82	50%
VE 5-52	19%	<1%	12%	17%	0.31	0.29	0.23	0.20	0.93	50%
VE 5-55	17%	<1%	12%	20%	0.31	0.28	0.21	0.18	0.97	50%
VE 5-85	28%	<1%	12%	27%	0.31	0.28	0.29	0.25	1.14	50%
VE 6-2M	36%	<1%	17%	24%	0.29	0.26	0.26	0.22	1.64	50%
VE 6-40	18%	<1%	19%	21%	0.31	0.28	0.19	0.17	1.08	50%
VE 6-42	19%	<1%	21%	16%	0.31	0.28	0.21	0.18	1.05	50%
VE 6-52	25%	<1%	19%	17%	0.31	0.29	0.25	0.21	1.20	50%
VE 6-55	24%	<1%	18%	21%	0.31	0.28	0.23	0.20	1.19	50%
VE 6-85	39%	<1%	18%	27%	0.31	0.28	0.32	0.28	1.39	50%
VE 7-2M	33%	<1%	15%	24%	0.29	0.26	0.23	0.19	1.71	50%
VE 7-40	17%	<1%	17%	21%	0.31	0.28	0.17	0.15	1.11	50%
VE 7-42	17%	<1%	18%	16%	0.31	0.28	0.18	0.15	1.15	50%
VE 7-52	23%	<1%	17%	17%	0.31	0.29	0.21	0.18	1.27	50%
VE 7-55	21%	<1%	15%	20%	0.31	0.28	0.19	0.17	1.26	50%
VE 7-85	35%	<1%	15%	27%	0.31	0.28	0.26	0.22	1.59	50%
VE 10-2M	32%	<1%	14%	24%	0.29	0.26	0.22	0.19	1.66	50%
VE 10-40	16%	<1%	16%	21%	0.31	0.28	0.17	0.15	1.07	50%
VE 10-42	17%	<1%	17%	16%	0.31	0.28	0.18	0.15	1.11	50%
VE 10-52	22%	<1%	16%	17%	0.31	0.29	0.21	0.18	1.23	50%
VE 10-55	21%	<1%	15%	20%	0.31	0.28	0.19	0.17	1.22	50%
VE 10-85	34%	<1%	15%	27%	0.31	0.28	0.26	0.22	1.55	50%
VE 15-2M	45%	<1%	23%	26%	0.29	0.26	0.31	0.27	1.65	50%
VE 15-40	23%	<1%	18%	38%	0.31	0.28	0.29	0.25	0.92	50%
VE 15-42	23%	<1%	22%	36%	0.31	0.29	0.34	0.29	0.81	50%



Product Code	Transmittance		Reflectance		U-Value		Shading Coefficient	SHGC	LSG	Silk-screen
	Visible	U-V	Vis-Out	Vis-In	Winter	Summer				
VE 15-52	31%	<1%	21%	35%	0.31	0.29	0.43	0.37	0.84	50%
VE 15-55	30%	<1%	16%	36%	0.31	0.28	0.37	0.32	0.93	50%
VE 15-85	48%	<1%	24%	35%	0.31	0.28	0.58	0.51	0.93	50%
VE 1-2M	37%	<1%	24%	27%	0.29	0.26	0.27	0.23	1.60	60%
VE 1-40	19%	<1%	26%	22%	0.31	0.28	0.21	0.18	1.04	60%
VE 1-42	19%	<1%	28%	17%	0.31	0.28	0.23	0.20	0.97	60%
VE 1-52	26%	<1%	26%	18%	0.31	0.29	0.28	0.24	1.08	60%
VE 1-55	24%	<1%	25%	22%	0.31	0.28	0.25	0.22	1.10	60%
VE 1-85	40%	<1%	25%	31%	0.31	0.28	0.38	0.33	1.20	60%
VE 2-2M	31%	<1%	18%	27%	0.29	0.26	0.23	0.20	1.55	60%
VE 2-40	16%	<1%	20%	22%	0.31	0.28	0.18	0.15	1.05	60%
VE 2-42	16%	<1%	21%	17%	0.31	0.28	0.19	0.16	1.01	60%
VE 2-52	22%	<1%	20%	18%	0.31	0.29	0.22	0.19	1.14	60%
VE 2-55	20%	<1%	19%	22%	0.31	0.28	0.20	0.17	1.20	60%
VE 2-85	33%	<1%	19%	30%	0.31	0.28	0.28	0.24	1.39	60%
VE 3-2M	19%	<1%	9%	26%	0.29	0.26	0.19	0.16	1.16	60%
VE 3-40	10%	<1%	10%	22%	0.31	0.28	0.16	0.14	0.68	60%
VE 3-42	10%	<1%	10%	17%	0.31	0.28	0.18	0.15	0.65	60%
VE 3-52	13%	<1%	10%	18%	0.31	0.29	0.21	0.18	0.72	60%
VE 3-55	12%	<1%	9%	22%	0.31	0.28	0.19	0.16	0.76	60%
VE 3-85	20%	<1%	9%	30%	0.31	0.28	0.25	0.22	0.91	60%
VE 4-2M	22%	<1%	12%	26%	0.29	0.26	0.21	0.18	1.23	60%
VE 4-40	11%	<1%	12%	22%	0.31	0.28	0.17	0.15	0.76	60%
VE 4-42	12%	<1%	13%	17%	0.31	0.28	0.19	0.16	0.73	60%
VE 4-52	16%	<1%	12%	18%	0.31	0.29	0.22	0.19	0.82	60%
VE 4-55	15%	<1%	12%	22%	0.31	0.28	0.20	0.17	0.86	60%



Product Code	Transmittance		Reflectance		U-Value		Shading Coefficient	SHGC	LSG	Silk-screen
	Visible	U-V	Vis-Out	Vis-In	Winter	Summer				
VE 4-85	24%	<1%	12%	30%	0.31	0.28	0.28	0.24	1.00	60%
VE 5-2M	23%	<1%	12%	26%	0.29	0.26	0.21	0.18	1.29	60%
VE 5-40	12%	<1%	13%	22%	0.31	0.28	0.17	0.15	0.79	60%
VE 5-42	12%	<1%	14%	17%	0.31	0.28	0.18	0.16	0.76	60%
VE 5-52	16%	<1%	13%	18%	0.31	0.29	0.21	0.18	0.90	60%
VE 5-55	15%	<1%	12%	22%	0.31	0.28	0.20	0.17	0.89	60%
VE 5-85	25%	<1%	12%	30%	0.31	0.28	0.27	0.23	1.09	60%
VE 6-2M	32%	<1%	19%	27%	0.29	0.26	0.23	0.20	1.58	60%
VE 6-40	16%	<1%	21%	22%	0.31	0.28	0.18	0.16	1.01	60%
VE 6-42	17%	<1%	22%	17%	0.31	0.28	0.19	0.17	0.97	60%
VE 6-52	22%	<1%	21%	18%	0.31	0.29	0.23	0.20	1.11	60%
VE 6-55	21%	<1%	19%	22%	0.31	0.28	0.21	0.18	1.16	60%
VE 6-85	34%	<1%	19%	30%	0.31	0.28	0.29	0.25	1.36	60%
VE 7-2M	29%	<1%	16%	27%	0.29	0.26	0.21	0.18	1.58	60%
VE 7-40	15%	<1%	18%	22%	0.31	0.28	0.16	0.14	1.04	60%
VE 7-42	15%	<1%	19%	17%	0.31	0.28	0.17	0.15	1.00	60%
VE 7-52	20%	<1%	18%	18%	0.31	0.29	0.19	0.17	1.18	60%
VE 7-55	19%	<1%	17%	22%	0.31	0.28	0.18	0.16	1.17	60%
VE 7-85	31%	<1%	17%	30%	0.31	0.28	0.24	0.20	1.54	60%
VE 10-2M	28%	<1%	16%	27%	0.29	0.26	0.21	0.18	1.54	60%
VE 10-40	14%	<1%	17%	22%	0.31	0.28	0.16	0.14	1.01	60%
VE 10-42	15%	<1%	18%	17%	0.31	0.28	0.17	0.15	0.97	60%
VE 10-52	19%	<1%	17%	18%	0.31	0.29	0.19	0.17	1.14	60%
VE 10-55	18%	<1%	16%	22%	0.31	0.28	0.18	0.16	1.14	60%
VE 10-85	30%	<1%	16%	30%	0.31	0.28	0.24	0.21	1.42	60%
VE 15-2M	39%	<1%	25%	29%	0.29	0.26	0.28	0.24	1.63	60%
VE 15-40	20%	<1%	19%	41%	0.31	0.28	0.28	0.24	0.85	60%
VE 15-42	21%	<1%	23%	39%	0.31	0.29	0.33	0.28	0.73	60%
VE 15-52	27%	<1%	22%	39%	0.31	0.29	0.41	0.36	0.76	60%
VE 15-55	26%	<1%	17%	40%	0.31	0.28	0.36	0.31	0.84	60%
VE 15-85	42%	<1%	25%	39%	0.31	0.28	0.56	0.49	0.85	60%



Product Code	Transmittance		Reflectance		U-Value		Shading Coefficient	SHGC	LSG	Silk-screen
	Visible	U-V	Vis-Out	Vis-In	Winter	Summer				
VNE 1-63	60%	<1%	10%	9%	0.29	0.26	0.33	0.28	2.14	-
VNE 2-63	51%	<1%	10%	10%	0.29	0.26	0.30	0.26	1.96	-
VNE 3-63	29%	<1%	7%	9%	0.29	0.26	0.21	0.18	1.61	-
VNE 4-63	36%	<1%	7%	10%	0.29	0.26	0.24	0.21	1.71	-
VNE 6-63	51%	<1%	10%	10%	0.29	0.26	0.30	0.26	1.96	-
VNE 7-63	47%	<1%	9%	10%	0.29	0.26	0.27	0.24	1.92	-
VNE 8-63	45%	<1%	7%	9%	0.29	0.26	0.26	0.23	1.96	-
VNE 11-63	36%	<1%	6%	9%	0.29	0.26	0.24	0.21	1.71	-
VNE 12-63	46%	<1%	7%	9%	0.29	0.26	0.27	0.23	1.96	-
VNE 13-63	66%	<1%	10%	10%	0.29	0.26	0.33	0.29	2.24	-
VNE 14-63	46%	<1%	7%	9%	0.29	0.26	0.27	0.23	2.00	-
VNE 15-63	64%	<1%	10%	11%	0.29	0.26	0.34	0.29	2.17	-
VNE 19-63	44%	<1%	8%	9%	0.29	0.26	0.27	0.23	1.91	-



Product Code	Transmittance		Reflectance		U-Value		Shading Coefficient	SHGC	LSG
	Visible	U-V	Vis-Out	Vis-In	Winter	Summer			
Azuria	58%	<1%	10%	12%	0.46	0.48	0.44	0.38	1.53
Blue	48%	<1%	8%	11%	0.46	0.48	0.54	0.47	1.03
Blue-Green	64%	<1%	11%	12%	0.46	0.48	0.56	0.49	1.31
Bronze	45%	<1%	8%	11%	0.46	0.48	0.55	0.47	0.96
Clear	75%	<1%	14%	13%	0.46	0.48	0.77	0.66	1.14
Gray	38%	<1%	7%	11%	0.46	0.48	0.50	0.43	0.88
Green	63%	<1%	11%	12%	0.46	0.48	0.53	0.46	1.37
Green 2000	56%	<1%	10%	12%	0.46	0.48	0.44	0.38	1.48

Product Code Legend

For your convenience, here are the codes for Viracon products that are featured in our performance data tables.

Ex. VE 1-85

Coating Type	Outboard Glass Substrate	Transmittance of coating
VE	1	85

Coating Type

VS Stainless Steel	VY Crystal Chrome	VLE Laminated Low-E
VT Titanium	VP Pewter	VUE Viracon VUE Low-E
VA Antique	VH VH Series	VNE Neutral Low-E
VE Low-E	VRE Radiant Low-E	W VE-85 #3

Glass Substrate

1 Clear	9 Versalux® Blue 2000
2 Green	10 Versalux® Green 2000
3 Gray	11 Arctic Blue™
4 Bronze	12 Atlantica™
5 Blue	13 Starphire™
6 Blue-Green	14 Caribia™
7 Azuria™	15 UltraWhite™
8 EverGreen™	19 Guardian CrystalGray™

Nominal Visible Light Transmittance

08 8%	37 37%	55 55%
13 13%	38 38%	57 57%
14 14%	40 40%	59 59%
18 18%	42 42%	60 60%
20 20%	45 45%	63 63%
22 22%	46 46%	67 67%
24 24%	50 50%	75 75%
30 30%	52 52%	85 85%
35 35%	54 54%	2M 70%

ENERGY TERMS

Visible Light Transmittance

The percentage of visible light (380 - 780 nm) that is transmitted through the glass.

Solar Transmittance

The percentage of ultraviolet, visible and near infrared energy (300 - 3000 nm) that is transmitted through the glass.

Visible Light Reflectance

The percentage of light that is reflected from the glass surface(s).

Solar Reflectance

The percentage of solar energy that is reflected from the glass surface(s).

NFRC U-Value

A measure of heat gain or heat loss through glass due to the differences between indoor and outdoor temperatures. These are center pane values based on NFRC standard winter nighttime and summer daytime conditions.

U-values are given in BTU/(hr*ft²*°F) for the English system. Metric U-values are given in W/(m²*°K). To convert from English to metric, multiply the English U-value by 5.6783.

NFRC winter nighttime U-values are based on an outdoor temperature of 0°F (-17.8°C), an indoor temperature of 70°F (21°C) and a 12.3 mph (19.8 km/h) outdoor air velocity.

NFRC summer daytime U-values are based on an outdoor temperature of 89°F (32°C), an indoor temperature of 75°F (24°C), a 6.2 mph (10.1 km/h) outdoor air velocity and a solar intensity of 248 BTU/(hr*ft²*°F) (782 W/m²).

R-Value

Thermal resistance is expressed in ft²*hr*°F/BTU. It is the reciprocal of U-value. The higher the R-value, the less heat is transmitted through the glazing material.

Shading Coefficient

Shading coefficient is the ratio of solar heat gain through a specific type of glass that is relative to the solar heat gain through a 1/8" (3 mm) ply of clear glass under identical conditions (see Figure 9). As the shading coefficient number decreases, heat gain is reduced, which means a better performing product.

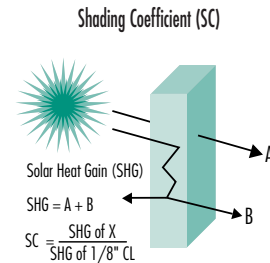


Figure 9

Relative Heat Gain (RHG)

The amount of heat gained through glass taking into consideration U-value and shading coefficient. Using the NFRC standard, relative heat gain is calculated as follows:

English System:

$$RHG = \text{Summer U-value} \times 14^{\circ}\text{F} + \text{shading coefficient} \times 200.$$

Metric System:

$$RHG = \text{Summer U-value} \times 7.8^{\circ}\text{C} + \text{shading coefficient} \times 630.$$

Solar Heat Gain Coefficient (SHGC)

The portion of directly transmitted and absorbed solar energy that enters into the building's interior. The higher the SHGC, the higher the heat gain.

Light to Solar Gain Ratio (LSG)

The ratio is equal to the Visible Light Transmittance divided by the Solar Heat Gain Coefficient. The Department of Energy's Federal Technology Alert publication of the Federal Energy Management Program (FEMP) views an LSG of 1.25 or greater to be Green Glazing/Spectrally Selective Glazing.

European U-Value (formerly K-Value)

Based on ISO-DP10292 draft standard conditions. It is based on an outdoor temperature of 5.5°C, an indoor temperature of 20.5°C and a 4.8 m/s outdoor air velocity.

The solar and optical data presented in this guide is based on the National Fenestration Rating Council measurement standards. They were calculated using Lawrence Berkeley Laboratories (LBL) new WINDOW 5.2 software. In some cases performance data changed in comparison to previous versions of LBL's WINDOW program.