



Laminated Glass

**GUARDIAN[®]
SUNGUARD[®]**
Advanced Architectural Glass

SunGuard[®] Embedded Coatings

EMBEDDABLE PRODUCTS & RECOMMENDED APPLICATIONS.

Guardian Glass offers high-performance glass coatings designed specifically for embedded laminated applications for the commercial glazing industry. SunGuard coatings tested and approved for these applications combine excellent thermal and solar energy performance with the durability and safety characteristics of laminated glass. Our embeddable coatings provide the versatility needed and meet the requirements of modern building codes while enabling architects and designers to create safe and aesthetically pleasing buildings.

- Applicable to small & large missile tests for hurricane codes.
- Can provide sound attenuation, safety and security properties.
- Low-E coatings (SNX and SN) that can be utilized in an embedded laminated make-up are designated with a "L" in the product name.

RECOMMENDED CONFIGURATIONS:

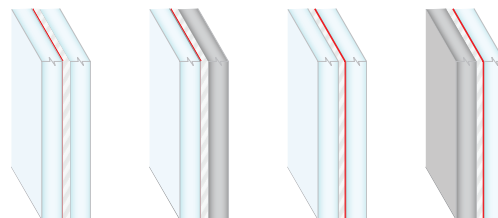
SunGuard SNX-L 62/34 HT

Embedded - coating on clear or UltraClear[®] glass:

- #2 surface with a clear, UltraClear or tinted inboard.
- #3 surface with a clear, UltraClear or tinted outboard.

Insulating Glass (non-laminated) - coating on clear or UltraClear glass:

- SNX-L 62/34 HT can be used for #2 and #3 surface IGU applications.
 - Note that "L" version will have a slightly different color than SNX 62/27.



SNX-L 62/34 HT – Embedded

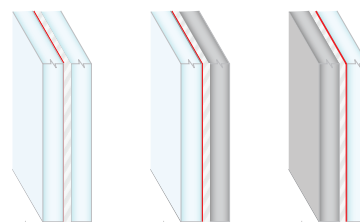
SunGuard SN-L 68 HT

Embedded - coating on clear or UltraClear[®] glass:

- #2 surface with a clear, UltraClear or tinted inboard.
- #3 surface with a tinted outboard.

Insulating Glass (non-laminated) - coating on clear glass:

- SN-L 68 HT can be used for #2 and #3 surface IGU applications.

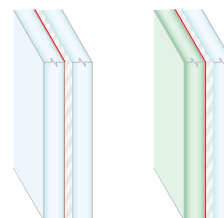


SN-L 68 HT – Embedded

SunGuard Silver 20

Embedded - Coating on clear or green tinted glass:

- #2 surface with a clear inboard.



Silver 20 – Embedded

Laminated Data (embedded)

Product	Outboard - Inboard Substrate	Transmittance			Reflectance			U-Factor		Relative Heat Gain	Solar Heat Gain Coefficient	Light to Solar Gain
		Visible Light %	Ultra-violet %	Solar Energy %	Visible Light Out %	Visible Light In %	Solar Energy Out %	Winter Night	Summer Day			
Coating #2 surface										6 mm/.090 PVB/6 mm		
SNX-L 62/34 HT	UltraClear/UltraClear	63	0	25	15	17	51	0.94	0.85	86	0.32	1.99
	UC/Green	52	0	19	14	13	51	0.94	0.85	76	0.28	1.88
	UC/CrystalGray	44	0	17	14	10	51	0.94	0.85	74	0.27	1.65
	UC/Gray	31	0	13	14	7	51	0.94	0.85	68	0.24	1.30
	UC/CrystalBlue	40	0	17	14	9	51	0.94	0.85	73	0.26	1.52
	Clear/Clear	61	0	24	15	16	40	0.94	0.85	90	0.34	1.80
	Clear/Green	51	0	18	14	13	40	0.94	0.85	82	0.30	1.68
	Clr/CrystalGray	43	0	17	14	10	39	0.94	0.85	81	0.30	1.46
	Clear/Gray	31	0	13	13	7	39	0.94	0.85	75	0.27	1.14
	Clr/CrystalBlue	39	0	16	14	9	39	0.94	0.85	80	0.29	1.35
SN-L 68 HT	UltraClear/UltraClear	69	0	32	11	11	43	0.94	0.85	102	0.39	1.78
	UC/Green	57	0	22	10	9	43	0.94	0.85	87	0.32	1.76
	UC/CrystalGray	48	0	22	10	8	43	0.94	0.85	87	0.32	1.50
	UC/Gray	34	0	17	9	6	43	0.94	0.85	80	0.29	1.17
	UC/CrystalBlue	44	0	21	10	7	43	0.94	0.85	86	0.32	1.37
	Clear/Clear	67	0	29	11	11	34	0.94	0.85	103	0.40	1.69
	Clear/Green	56	0	21	10	9	33	0.94	0.85	92	0.34	1.63
	Clear/CrystalGray	47	0	21	10	8	33	0.94	0.85	91	0.34	1.39
	Clear/Gray	34	0	16	9	6	33	0.94	0.85	85	0.31	1.07
	Clear/CrystalBlue	43	0	20	10	7	33	0.94	0.85	91	0.34	1.27
Silver 20	Clear/Clear	19	0	14	30	24	27	0.94	0.85	83	0.31	0.62
	Green/Clear	16	0	8	22	24	12	0.94	0.85	82	0.31	0.52
Coating #3 surface												
SNX-L 62/34 HT	UltraClear/UltraClear	63	0	25	17	15	45	0.94	0.85	93	0.35	1.82
	Clear/Clear	61	0	24	16	15	35	0.94	0.85	96	0.36	1.82
	Green/Clear	51	0	18	13	14	10	0.94	0.85	102	0.39	1.31
	CrystalGray/Clear	43	0	17	11	14	17	0.94	0.85	95	0.36	1.19
	Gray/Clear	31	0	13	8	13	16	0.94	0.85	89	0.33	0.92
	CrystalBlue/Clear	39	0	16	10	14	21	0.94	0.85	91	0.34	1.15
SN-L 68 HT	Green/Clear	56	0	21	9	10	8	0.94	0.85	108	0.42	1.34
	CrystalGray/Clear	47	0	21	8	10	12	0.94	0.85	106	0.41	1.17
	Gray/Clear	34	0	16	6	9	12	0.94	0.85	98	0.37	0.90
	CrystalBlue/Clear	43	0	20	7	10	15	0.94	0.85	103	0.40	1.09

Insulating Glass Data (non-laminated)

Coating #2 surface										6 mm/12.7 mm a.s./6 mm		
SNX-L 62/34 HT	UltraClear - UltraClear	67	15	28	12	13	50	0.29	0.27	73	0.30	2.23
	Clear - Clear	65	12	26	12	13	39	0.29	0.27	73	0.30	2.16
SN-L 68 HT	Clear - Clear	68	30	33	11	12	33	0.29	0.28	90	0.38	1.80
Coating #3 surface												
SNX-L 62/34 HT	UltraClear - UltraClear	67	15	28	13	12	53	0.29	0.27	98	0.41	1.65
	Clear - Clear	65	12	26	13	12	41	0.29	0.27	95	0.40	1.63
	Green - Clear	54	6	20	10	11	11	0.29	0.27	77	0.32	1.68
	CrystalGray - Clear	46	7	19	9	11	20	0.29	0.27	75	0.31	1.48
	Gray - Clear	33	6	14	7	10	19	0.29	0.27	63	0.26	1.27
	CrystalBlue - Clear	42	8	18	8	10	25	0.29	0.27	73	0.30	1.38
SN-L 68 HT	Clear - Clear	68	30	33	12	11	36	0.29	0.28	110	0.46	1.48
	Green - Clear	57	13	23	10	10	10	0.29	0.28	83	0.35	1.95
	CrystalGray - Clear	48	17	23	9	10	17	0.29	0.28	84	0.35	1.38
	Gray - Clear	34	14	18	7	9	17	0.29	0.28	72	0.30	1.16
	CrystalBlue - Clear	44	19	23	8	10	22	0.29	0.28	84	0.35	1.26
Bird Friendly - Dots on #2 surface, SNX-L 62/34 HT coating on #3 surface												
20% white dots	Clear - Clear	56	10	23	17	16	39	0.29	0.27	85	0.35	1.58
40% white dots	Clear - Clear	47	7	19	22	21	37	0.29	0.27	75	0.31	1.53

- The performance values shown are nominal and subject to variations due to manufacturing tolerances.
- Relative Heat Gain, Shading Coefficient, Solar Heat Gain Coefficient and/or LSG may change slightly when using argon gas fill.
- Guardian performance data are calculated for center-of-glass only (no spacer or framing) in accordance with LBNL Window 7 program.
- Guardian reserves the right to change product performance characteristics without notice or obligation.