



**GUARDIAN®
GLASS**

See what's possible™



Guardian® Architectural Coated Glass 2022

Guardian® Architectural Coated Glass 2022

Product	Color	Visible light				Solar energy			Solar factor (g) EN 410	Shad. coeff. g EN / 0.87	U-value (EN 673)		Selectivity	Heat treatable/bendable	Edge deletion	Ceramic print on coating
		Transmission [%]	Reflection outside [%]	Reflection inside [%]	Color rendering index	Direct transmission [%]	Reflection outside [%]	Absorption [%]			Argon 90% [W/m²K]	Argon 90% [W/m²K]				
Guardian SunGuard® eXtra Selective State-of-the-art solar protection																
Double Glazing 6 - 16 - 4, coating on surface #2																
SNX 70 HT Ultra***	neutral	68	13	14	95	31	50	19	32	0.37	1.0	2.14	Yes*	Yes	Yes*	
SNX 70 HT	neutral	68	13	14	93	30	44	26	32	0.36	1.0	2.14	Yes*	Yes	Yes*	
SNX 70 Ultra***	neutral	67	11	12	96	32	42	26	33	0.39	1.0	2.01	No	Yes	No	
SNX 70	neutral	67	11	12	95	31	37	32	33	0.38	1.0	2.01	No	Yes	No	
SNX 60 Ultra***	neutral	60	13	13	95	28	44	28	29	0.34	1.0	2.07	HT-version*	Yes	Yes*	
SNX 60	neutral	60	13	13	93	27	38	35	29	0.34	1.0	2.07	HT-version*	Yes	Yes*	
SNX 50 Ultra***	neutral	50	10	12	91	22	42	35	24	0.28	1.0	2.08	HT-version*	Yes	Yes*	
SNX 50	neutral	50	10	13	90	22	36	42	24	0.28	1.0	2.08	HT-version*	Yes	Yes*	
Triple Glazing 6 - 16 - 4 - 16 - 4, coating on surface #2, Guardian ClimaGuard® Premium2 on surface #5																
SNX 70 HT Ultra***	neutral	62	15	17	94	28	51	21	30	0.34	0.5	2.08	Yes*	Yes	Yes*	
SNX 70 HT	neutral	61	15	18	92	27	45	28	29	0.34	0.5	2.09	Yes*	Yes	Yes*	
SNX 70 Ultra***	neutral	61	13	15	96	29	44	27	31	0.36	0.5	1.96	No	Yes	No	
SNX 70	neutral	60	13	16	94	28	38	34	31	0.35	0.5	1.97	No	Yes	No	
SNX 60 Ultra***	neutral	54	15	16	94	25	45	30	27	0.31	0.5	2.00	HT-version*	Yes	Yes*	
SNX 60	neutral	54	15	16	92	24	39	37	27	0.31	0.5	2.00	HT-version*	Yes	Yes*	
SNX 50 Ultra***	neutral	45	11	16	91	20	43	37	22	0.25	0.5	2.05	HT-version*	Yes	Yes*	
SNX 50	neutral	45	11	15	88	20	37	44	22	0.25	0.5	2.05	HT-version*	Yes	Yes*	
Guardian SunGuard® SuperNeutral™ High selective solar protection on neutral looking glass																
Double Glazing 6 - 16 - 4, coating on surface #2																
SN 75 HT Ultra***	neutral	76	13	14	95	40	44	16	41	0.47	1.0	1.85	Yes*	Yes	Yes*	
SN 75 HT	neutral	75	13	14	95	38	39	23	40	0.46	1.0	1.88	Yes*	Yes	Yes*	
SN 75 Ultra***	neutral	73	12	13	97	39	43	18	41	0.47	1.0	1.80	No	Yes	No	
SN 75	neutral	73	12	13	96	38	37	25	40	0.46	1.0	1.80	No	Yes	No	
SN 70S	neutral	70	11	13	95	37	38	25	39	0.45	1.0	1.80	HT-version*	Yes	Yes*	
SN 70/37	neutral	70	11	12	93	35	39	26	37	0.42	1.0	1.89	HT-version*	Yes	Yes*	
SN 70/35	neutral blue	70	14	16	94	33	42	25	35	0.40	1.0	2.00	HT-version*	Yes	Yes*	
SN 63	neutral	63	12	16	92	31	37	31	33	0.38	1.0	1.85	HT-version*	Yes	Yes*	
SN 51	neutral	51	14	13	91	25	38	37	27	0.31	1.0	1.82	HT-version*	Yes	Yes*	
SN 40/23	neutral blue	40	16	32	91	21	36	43	23	0.27	1.0	1.74	HT-version*	Yes	Yes*	
SN 29/18	neutral blue	29	17	27	90	16	33	51	18	0.21	1.1	1.61	HT-version*	Yes	Yes*	
Triple Glazing 6 - 16 - 4 - 16 - 4, coating on surface #2, Guardian ClimaGuard® Premium2 on surface #5																
SN 75 HT Ultra***	neutral	69	16	17	95	35	46	19	38	0.44	0.5	1.82	Yes*	Yes	Yes*	
SN 75 HT	neutral	68	16	17	94	33	40	27	37	0.42	0.5	1.84	Yes*	Yes	Yes*	
SN 75 Ultra***	neutral	67	14	16	97	35	45	21	38	0.43	0.5	1.80	No	Yes	No	
SN 75	neutral	66	14	16	95	33	38	29	37	0.42	0.5	1.80	No	Yes	No	
SN 70S	neutral	64	14	17	94	32	40	28	36	0.41	0.5	1.80	HT-version*	Yes	Yes*	
SN 70/37	neutral	64	14	16	92	31	40	29	34	0.39	0.5	1.88	HT-version*	Yes	Yes*	
SN 70/35	neutral blue	64	16	18	94	29	43	28	32	0.37	0.5	2.00	HT-version*	Yes	Yes*	
SN 63	neutral	57	14	19	91	28	38	34	31	0.35	0.5	1.84	HT-version*	Yes	Yes*	
SN 51	neutral	46	15	17	91	22	38	40	25	0.29	0.5	1.84	HT-version*	Yes	Yes*	
SN 40/23	neutral blue	37	16	32	90	19	36	45	21	0.24	0.5	1.76	HT-version*	Yes	Yes*	
SN 29/18	neutral blue	26	18	28	89	13	33	54	16	0.18	0.6	1.63	HT-version*	Yes	Yes*	
Guardian SunGuard® High Performance The all-season solution: solar protection & thermal insulation combined																
Double Glazing 6 - 16 - 4, coating on surface #2																
HP Light Blue 62/52	blue neutral	62	16	12	96	48	17	35	52	0.59	1.5	1.19	Yes*	No*	Yes*	
HP Neutral 60/40**	neutral	60	25	20	93	38	35	27	40	0.46	1.1	1.50	Yes*	No*	Yes*	
HP Neutral 50/32	neutral	50	26	23	94	30	40	30	33	0.38	1.1	1.52	Yes*	No*	Yes*	
HP Silver 43/31	silver	43	32	16	95	29	36	35	31	0.36	1.2	1.39	Yes*	No*	Yes*	
HP Neutral 41/33	neutral	41	22	12	91	29	25	46	33	0.38	1.4	1.24	Yes*	No*	Yes*	
HP Royal Blue 41/29	deep blue	40	27	27	95	26	31	43	29	0.33	1.1	1.38	Yes*	No*	Yes*	
HP Amber 41/29	light bronze	41	25	17	87	27	36	37	29	0.34	1.1	1.41	Yes*	No*	Yes*	
HP Bright Green 40/29**	bright green	40	37	24	96	26	24	50	29	0.33	1.1	1.38	Yes*	No*	Yes*	
HP Bronze 40/27	dark bronze	40	15	26	90	24	27	49	27	0.31	1.1	1.48	Yes*	No*	Yes*	
HP Silver 35/26	silver	35	44	23	98	24	43	33	26	0.30	1.2	1.35	Yes*	No*	Yes*	
Triple Glazing 6 - 16 - 4 - 16 - 4, coating on surface #2, Guardian ClimaGuard® Premium2 on surface #5																
HP Light Blue 62/52	blue neutral	56	18	15	95	36	21	43	42	0.48	0.7	1.33	Yes*	No*	Yes*	
HP Neutral 60/40**	neutral	55	26	22	93	31	37	32	36	0.41	0.6	1.53	Yes*	No*	Yes*	
HP Neutral 50/32	neutral	46	28	25	93	25	41	34	29	0.33	0.6	1.59	Yes*	No*	Yes*	
HP Silver 43/31	silver	39	33	19	94	23	38	39	27	0.31	0.6	1.44	Yes*	No*	Yes*	
HP Neutral 41/33	neutral	37	23	16	90	23	26	51	27	0.31	0.6	1.37	Yes*	No*	Yes*	
HP Royal Blue 41/29	deep blue	36	28	28	94	21	32	47	25	0.29	0.6	1.44	Yes*	No*	Yes*	
HP Amber 41/29	light bronze	37	26	20	87	22	38	40	26	0.29	0.6	1.42	Yes*	No*	Yes*	
HP Bright Green 40/29**	bright green	36	38	25	94	21	25	54	25	0.29	0.6	1.44	Yes*	No*	Yes*	
HP Bronze 40/27	dark bronze	36	16	27	89	21	27	52	24	0.27	0.6	1.50	Yes*	No*	Yes*	
HP Silver 35/26	silver	32	44	25	97	20	44	36	23	0.26	0.6	1.39	Yes*	No*	Yes*	
Guardian SunGuard® Solar The modern standard in solar protection																
Double Glazing 6 - 16 - 4, coating on surface #2, Guardian ClimaGuard® Premium2 on #3																
Solar Bright Green 20	bright green	19	35	14	97	12	19	69	16	0.19	1.1	1.19	Yes*	No	Yes*	
Solar Bronze 20	bronze	19	17	14	94	12	20	68	16	0.18	1.1	1.19	Yes*	No	Yes*	
Solar Gold 20	gold	21	24	12	93	14	19	68	18	0.20	1.1	1.17	Yes*	No	Yes*	
Solar Grey 20	dark grey	19	10	7	96	13	11	76	18	0.20	1.1	1.05	Yes*	No	Yes*	
Guardian SunGuard® High Durable Advancing durability, solar protection goes tough																
Single Glazing 6mm, coating on surface #2																
HD Silver 70	bright silver	70	27	28	97	69	21	10	72	0.82	NA	0.97	Yes*	No	Yes*	
HD Neutral 67	neutral	66	16	18	99	63	13	24	68	0.79	NA	0.97	Yes*	No	Yes*	
HD Diamond 66 Ultra***	diamond bright	66	32	33	98	71	26	3	69	0.80	NA	0.95	Yes*	No	Yes*	
HD Diamond 66	diamond bright	66	32	33	99	67	24	8	69	0.80	NA	0.95	Yes*	No	Yes*	
HD Light Blue 52	neutral blue	52	17	17	99	50	14	36	58	0.67	NA	0.89	Yes*	No	Yes*	
HD Silver Grey 32	light grey	32	23	22	96	31	19	50	42	0.48	NA	0.76	Yes*	No	Yes*	
HD Royal Blue 20	deep blue	21	22	32	98	19	21	60	32	0.36	NA	0.65	Yes*	No	No	
HD Silver 20	silver	20	34	28	94	19	29	52	29	0.34	NA	0.68	Yes*	No	Yes*	
HD Silver 10	silver	10	44	38	98	10	38	52	20	0.23	NA	0.50	Yes*	No	Yes*	
Double Glazing 6 - 16 - 4, coating on surface #2, Guardian ClimaGuard® Premium2 on surface #3																
HD Silver 70	bright silver	64	29	29	97	46	37	17	51	0.59	1.1	1.25	Yes*	No	Yes*	
HD Neutral 67	neutral	59	18	20	98	42	25	33	48	0.55	1.1	1.23	Yes*	No	Yes*	
HD Diamond 66 Ultra***	diamond bright	61	35	33	98	48	44	8	52	0.60	1.1	1.17	Yes*	No	Yes*	
HD Diamond 66	diamond bright	60	34	33	99	45	40	15	50	0.57	1.1	1.20	Yes*	No	Yes*	
HD Light Blue 52	neutral blue	47	19	20	98	34	21	45	39	0.45	1.1	1.21	Yes*	No	Yes*	
HD Silver Grey 32	light grey	30	24	24	96	21	22	57	26	0.30	1.1	1.15	Yes*	No	Yes*	
HD Royal Blue 20	deep blue	20	22	32	98	14	22	64	18	0.21	1.1	1.11	Yes*	No	No	
HD Silver 20	silver	18	34	28	93	13	30	56	17	0.20	1.1	1.06	Yes*	No	Yes*	
HD Silver 10	silver	9	44	37	97	7	39	55	10	0.12	1.1	0.90	Yes*	No	Yes*	

Product	Glass substrate	Color	Visible light				Solar energy			Solar factor (g) EN 410	Shad. coeff. g EN / 0.87	U-value (EN 673)		Heat treatable	Bendable	Edge deletion	Ceramic print on coating
---------	-----------------	-------	---------------	--	--	--	--------------	--	--	-------------------------	--------------------------	------------------	--	----------------	----------	---------------	--------------------------

Guardian SunGuard® spandrel options

Guardian SunGuard® glazing	Monolithic spandrel		Insulating glass spandrel ² (coating on #2 + enamel on #4)
	Enameled ¹	Shadow box (ventilated with black background)	
Guardian SunGuard® eXtra Selective			
SNX 70	-	-	SG SNX 70
SNX 70 HT	Clear float glass + WO-E-14-7065 (Greyish) ³ Clear float glass + WO-B-14-7066 (Blueish) ³	SG HD Light Blue 52	SG SNX 70 HT
SNX 60	Clear float glass + WO-B-14-7067 ³ SG Solar Royal Blue 20 + Ferro 140 15 4001 on #2	SG HD Royal Blue 20	SG SNX 60
SNX 50	Clear float glass + WO-B-14-7067 ³ SG Solar Royal Blue 20 + Ferro 140 15 4001 on #2	SG HD Royal Blue 20	SG SNX 50
Guardian SunGuard® SuperNeutral™			
SN 75	Clear float glass + WO-E-14-7065 (Greyish) ³ Clear float glass + WO-B-14-7066 (Blueish) ³	-	SG SN 75
SN 70S	Clear float glass + WO-E-14-7063 ³	-	SG SN 70S
SN 70/37	Clear float glass + WO-E-14-7063 ³	-	SG SN 70/37
SN 70/35	Clear float glass + WO-B-14-7067 ³	-	SG SN 70/35
SN 63	Clear float glass + WO-B-14-7064 ³	SG HD Light Blue 52	SG SN 63
SN 51	Clear float glass + WO-E-14-7063 (Greyish) ³ Clear float glass + WO-B-14-7064 (Blueish) ³	SG HD Light Blue 52	SG SN 51
SN 40/23	Clear float glass + WO-B-14-7067 ³ SG Solar Royal Blue 20 + Ferro 140 15 4001 on #2	SG HD Royal Blue 20	SG SN 40/23
SN 29/18	Clear float glass + WO-B-14-7067 ³ SG Solar Royal Blue 20 + Ferro 140 15 4001 on #2	SG HD Royal Blue 20	SG SN 29/18
Guardian SunGuard® High Performance			
HP Light Blue 62/52	Clear float glass + WO-B-14-7067 ³	-	SG HP Light Blue 62/52
HP Neutral 60/40	Clear float glass + WO-B-14-7064 ³ SG HD Silver Grey 32 + Ferro 140 15 4001 on #2	SG HD Silver Grey 32	SG HP Neutral 60/40
HP Neutral 50/32	Clear float glass + WO-B-14-7064 ³ SG HD Silver Grey 32 + Ferro 140 15 4001 on #2	SG HD Silver Grey 32	SG HP Neutral 50/32
HP Silver 43/31	-	SG HD Silver 70	SG HP Silver 43/31
HP Neutral 41/33	Clear float glass + WO-B-14-7064 ³ SG HD Silver Grey 32 + Ferro 140 15 4001 on #2	SG HD Silver Grey 32	SG HP Neutral 41/33
HP Amber 41/29	-	-	SG HP Amber 41/29
HP Royal Blue 41/29	SG Solar Royal Blue 20 + Ferro 140 15 4001 on #2	SG HD Royal Blue 20	SG HP Royal Blue 41/29
HP Bronze 40/27	SG Solar Bronze 20 + Ferro 140 15 4001 on #2	-	SG HP Bronze 40/27
HP Bright Green 40/29	SG Solar Bright Green 20 + Ferro 140 15 4001 on #2	-	SG HP Bright Green 40/29
HP Silver 35/26	SG HD Silver 10 + Ferro 140 15 4001 on #2	SG HD Silver 10	SG HP Silver 35/26
Guardian SunGuard® High Durable			
HD Silver 70	-	SG HD Silver 70	SG HD Silver 70
HD Neutral 67	Clear float glass + WO-E-14-7063 (Greyish) ³ Clear float glass + WO-B-14-7064 (Blueish) ³	SG HD Neutral 67	SG HD Neutral 67
HD Diamond 66	-	SG HD Diamond 66	SG HD Diamond 66
HD Light Blue 52	Clear float glass + WO-E-14-7063 (Greyish) ³ Clear float glass + WO-B-14-7064 (Blueish) ³	SG HD Light Blue 52	SG HD Light Blue 52
HD Silver Grey 32	Clear float glass + WO-B-14-7064 ³ SG HD Silver Grey 32 + Ferro 140 15 4001 on #2	SG HD Silver Grey 32	SG HD Silver Grey 32
HD Royal Blue 20	SG Solar Royal Blue 20 + Ferro 140 15 4001 on #2	SG HD Royal Blue 20	SG HD Royal Blue 20
HD Silver 20	SG HD Silver 20 + Ferro 140 15 4001 on #2	SG HD Silver 20	SG HD Silver 20
HD Silver 10	SG HD Silver 10 + Ferro 140 15 4001 on #2	SG HD Silver 10	SG HD Silver 10
Guardian SunGuard® Solar			
Solar Bronze 20	SG Solar Bronze 20 + Ferro 140 15 4001 on #2	-	SG Solar Bronze 20
Solar Gold 20	-	-	SG Solar Gold 20
Solar Grey 20	-	-	SG Solar Grey 20
Solar Bright Green 20	SG Solar Bright Green 20 + Ferro 140 15 4001 on #2	-	SG Solar Bright Green 20

The information provided above is a general recommendation only based on visual mock-ups and compatibility tests performed with the indicated Ferro ceramic frit system. Other ceramic frit systems/paints can consist of different components; this can lead to compatibility issues with the Guardian SunGuard coatings and/or can modify the final esthetic appearance of the relevant paint-coating combination. It is the responsibility of the users of this information to assure that appropriate compatibility tests in a real size mock-up are performed to verify the color matching between vision and spandrel.

¹ The indicated enamels (numbers) from Ferro and Wolbring (WO) are based on the enamel type FERRO System 140 and special color mixtures to adapt best to the related vision. Please contact the Guardian Technical Services Department for more information.

² In insulating glass spandrels, based on our experience, black or dark grey are the enamel colors that better match with the vision areas. For more information you can contact your local Technical Services Department.

³ When working on matching visual appearance for neutral and low reflecting glass types, which might be challenging, Guardian recommends a full size outdoor mock-up.

When selecting and applying enamels of other providers, the following RAL approximations can be used:

WO-E-14-7065	RAL 7011 / 7043
WO-B-14-7066	RAL 5007 / 5024
WO-E-14-7063	RAL 7011 / 7031
WO-B-14-7067	RAL 5023
WO-B-14-7064	RAL 5007 / 5009

**Light transmission:**

Percentage of visible light directly transmitted through the glass.

**Reflection outside:**

Percentage of visible light directly reflected from the exterior glass surface.

**U-value:**

The U-value is a measure of the heat loss by penetrating the glass. The lower the U-value is, the better the insulating properties are. Expressed in W/m^2K .

**Solar factor:**

Percentage of solar energy transmitted through the glass. It therefore measures the ability of a glazing to reduce the heating of the room. The lower the solar factor is, the better it helps to improve the comfort inside of the building.

**Selectivity:**

The selectivity of glass is expressed as the ratio between its light transmission and solar factor. When the selectivity of glass is higher than 2, it gives you twice as much light versus heat.

**Color rendering index:**

Ability of the glass to keep the colors the same as if they were observed without glazing. Measured with a scale from 1 to 100. A low CRI gives blurred colors, and a high CRI gives natural and bright colors.

Disclaimer:

The present version of this document replaces and cancels all previous versions, please be sure to use the latest one.

This document is only valid for the processing of the products mentioned in there. For more technical information, latest version of this document and other Guardian guidelines please refer to www.guardianglass.com or contact Guardian Technical Services.

The guidelines contained herein are for information purposes only and are not intended to be a comprehensive set of instructions but assume the processor has professional knowledge of glass processing. Guardian does not provide any warranty with respect to the content of this document, as well Guardian does not assume any liability for the accuracy or completeness hereof, unless otherwise stipulated by applicable law. It is the responsibility of the purchaser to confirm that the products are suitable for their intended application in compliance with the applicable laws and regulations. Guardian does not provide any warranty regarding the intended further processing or end product, which remains the full responsibility of the processor.

The products in this publication are sold subject to Guardian's standard terms and conditions of sale and any applicable written warranties.

Nothing in this document provides any express or implied warranty, or serves to change or supplement Guardian's written warranties, which warranties are provided in Guardian's Conditions of Sale, or any additional written limited warranties for certain fabricated, coated or safety glazing products located on our website at www.guardianglass.com.

Photo: One Black Friars, London, United Kingdom ©Hufton+Crow

Guardian Europe
Reference code: Guardian_ACG_FO_EN_0422

Guardian SunGuard®, Guardian ClimaGuard® and Guardian UltraClear® are registered trade marks of Guardian Glass.

www.guardianglass.com

© 2022 Guardian Glass

 **GUARDIAN
GLASS**
See what's possible™