



Your Dreams, Our Challenge

06 EN 03/2023

STOPRAY SMART - SOLAR CONTROL AND LOW EMISSIVITY 1Ag

	Coating position	Colour	EN 410							EN 673	American Standards							
			Colour rendering index %	LT %	SF %	LR % Ext	LR % Int	EA %	SC		NFRC 100				NFRC 200 & NFRC 300			
											U _g -value W/(m²K)	U-Factor Winter BTU/hr.ft².F	U-Factor Winter W/(m²K)	U-Factor Summer BTU/hr.ft².F	U-Factor Summer W/(m²K)	SC	SHGC	RHG W/m²
Insulating double glazing unit 6-16-6 Clear float with 100% Air																		
Stopray Smart 18	#2	Silver	92	18	15	35	17	51	0.17	1.3	0.30	1.69	0.23	1.32	0.17	0.15	121	1.20
Stopray Smart 30	#2	Neutral blue	95	30	22	29	15	46	0.25	1.4	0.31	1.75	0.25	1.42	0.25	0.22	167	1.36
Stopray Smart 30 on Bronze	#2	Bronze	92	17	15	12	15	73	0.17	1.4	0.31	1.75	0.25	1.42	0.20	0.17	132	1.00
Stopray Smart 30 on Green	#2	Green	86	24	16	21	15	75	0.18	1.4	0.31	1.75	0.25	1.42	0.20	0.17	136	1.41
Stopray Smart 30 on Grey	#2	Grey	91	14	14	10	15	77	0.16	1.4	0.31	1.75	0.25	1.42	0.18	0.16	126	0.88
Stopray Smart 51	#2	Neutral	95	51	34	26	17	32	0.39	1.4	0.31	1.74	0.25	1.41	0.37	0.32	246	1.59
Stopray Smart 51 on Bronze	#2	Bronze	94	29	22	11	16	65	0.25	1.4	0.31	1.74	0.25	1.41	0.26	0.23	177	1.26
Stopray Smart 51 on Green	#2	Light green	86	42	25	19	17	67	0.29	1.4	0.31	1.74	0.25	1.41	0.28	0.24	187	1.75
Stopray Smart 51 on Grey	#2	Grey	91	24	20	9	16	70	0.23	1.4	0.31	1.74	0.25	1.41	0.24	0.21	165	1.14
Insulating double glazing unit 6-12-6 Clear float with 100% Air																		
Stopray Smart 18	#2	Silver	92	18	15	35	17	51	0.17	1.6	0.29	1.65	0.28	1.59	0.18	0.16	126	1.13
Stopray Smart 30	#2	Neutral blue	95	30	22	29	15	46	0.25	1.6	0.30	1.71	0.29	1.67	0.25	0.22	172	1.36
Stopray Smart 30 on Bronze	#2	Bronze	92	17	16	12	15	73	0.18	1.6	0.30	1.71	0.29	1.67	0.20	0.17	138	1.00
Stopray Smart 30 on Green	#2	Green	86	24	17	21	15	75	0.20	1.6	0.30	1.71	0.29	1.67	0.21	0.18	142	1.33
Stopray Smart 30 on Grey	#2	Grey	91	14	15	10	15	76	0.17	1.6	0.30	1.71	0.29	1.67	0.18	0.16	132	0.88
Stopray Smart 51	#2	Neutral	95	51	34	26	17	32	0.39	1.6	0.30	1.70	0.29	1.66	0.38	0.33	250	1.55
Stopray Smart 51 on Bronze	#2	Bronze	94	29	23	11	16	64	0.26	1.6	0.30	1.70	0.29	1.66	0.26	0.23	183	1.26
Stopray Smart 51 on Green	#2	Light green	86	42	25	19	17	67	0.29	1.6	0.30	1.70	0.29	1.66	0.29	0.25	193	1.68
Stopray Smart 51 on Grey	#2	Grey	91	24	21	9	16	70	0.24	1.6	0.30	1.70	0.29	1.66	0.25	0.22	171	1.09

1. Stopray Smart 18 must be heat-treated to reach its final performances and aesthetics. It can not be used annealed.
2. Stopray Smart 30 and Stopray Smart 51 on clear and colored glass substrate can be heat-treated. These coatings have similar aesthetics in reflection before and after heat treatment.
3. No edge deletion is required.
4. Shelf life 9 months.

STOPRAY ACE - SOLAR CONTROL AND LOW EMISSIVITY 2Ag

	Coating position	Colour	EN 410							EN 673	American Standards							
			Colour rendering index %	LT %	SF %	LR % Ext	LR % Int	EA %	SC		NFRC 100				NFRC 200 & NFRC 300			
										U _g -value W/(m²K)	U-Factor Winter BTU/hr.ft².F	U-Factor Winter W/(m²K)	U-Factor Summer BTU/hr.ft².F	U-Factor Summer W/(m²K)	SC	SHGC	RHG W/m²	LSG
Insulating double glazing unit 6-16-6 Clear float with 100% Air																		
Stopray Blue Ace-30T	#2	Blue	81	30	19	18	13	58	0.22	1.4	0.31	1.74	0.25	1.40	0.22	0.19	147	1.58
Stopray Bronze Ace-30T	#2	Bronze	83	30	22	18	13	53	0.25	1.4	0.31	1.74	0.25	1.40	0.23	0.20	157	1.50
Stopray Grey Ace-30T	#2	Grey	83	32	22	16	10	56	0.25	1.4	0.31	1.74	0.25	1.40	0.24	0.20	159	1.60
Insulating double glazing unit 6-12-6 Clear float with 100% Air																		
Stopray Blue Ace-30T	#2	Blue	81	30	20	18	13	58	0.23	1.6	0.30	1.69	0.29	1.65	0.22	0.19	153	1.58
Stopray Bronze Ace-30T	#2	Bronze	83	30	22	18	13	53	0.25	1.6	0.30	1.69	0.29	1.65	0.24	0.21	163	1.43
Stopray Grey Ace-30T	#2	Grey	83	32	22	16	10	56	0.25	1.6	0.30	1.69	0.29	1.65	0.24	0.21	165	1.52

1. These coatings must be heat-treated to reach their final performances and aesthetics. They can not be used annealed.
2. Edge deletion is required.
3. Shelf life 3 months.

STOPRAY VISION & TITANIUM - SOLAR CONTROL AND LOW EMISSIVITY 2Ag

	Coating position	Colour	EN 410							EN 673	American Standards							
			Colour rendering index %	LT %	SF %	LR % Ext	LR % Int	EA %	SC		NFRC 100				NFRC 200 & NFRC 300			
											U _g -value W/(m²K)	U-Factor Winter BTU/hr.ft².F	U-Factor Winter W/(m²K)	U-Factor Summer BTU/hr.ft².F	U-Factor Summer W/(m²K)	SC	SHGC	RHG W/m²
Insulating double glazing unit 6-16-6 Clear float with 100% Air																		
Stopray Grey Vision-24T	#2	Light Grey	93	25	17	11	15	70	0.20	1.3	0.30	1.70	0.24	1.34	0.21	0.18	140	1.39
Stopray Grey Vision-36T	#2	Grey	90	36	22	9	14	67	0.25	1.3	0.30	1.69	0.23	1.32	0.24	0.21	163	1.71
Stopray Vision-40T	#2	Neutral	90	40	22	19	15	39	0.25	1.3	0.29	1.67	0.23	1.29	0.23	0.20	154	2.00
Stopray Vision-51T	#2	Neutral	90	50	28	14	14	39	0.32	1.3	0.29	1.67	0.23	1.29	0.29	0.25	194	2.00
Stopray Vision-72T	#2	Neutral	90	71	38	13	14	27	0.44	1.3	0.30	1.70	0.24	1.33	0.40	0.35	262	2.03
Stopray Titanium-34T	#2	Grey	90	34	22	6	12	68	0.25	1.3	0.30	1.70	0.23	1.33	0.25	0.22	170	1.55
Insulating double glazing unit 6-12-6 Clear float with 100% Air																		
Stopray Grey Vision-24T	#2	Light Grey	93	25	18	11	15	70	0.21	1.6	0.29	1.66	0.28	1.60	0.21	0.18	146	1.39
Stopray Grey Vision-36T	#2	Grey	90	36	22	9	14	67	0.25	1.6	0.29	1.64	0.28	1.60	0.25	0.22	169	1.64
Stopray Vision-40T	#2	Neutral	92	40	22	19	15	39	0.25	1.5	0.29	1.63	0.27	1.56	0.23	0.20	159	2.00
Stopray Vision-51T	#2	Neutral	92	50	28	14	14	39	0.32	1.5	0.29	1.62	0.27	1.56	0.30	0.26	199	1.92
Stopray Vision-72T	#2	Neutral	95	71	38	13	14	27	0.44	1.5	0.29	1.65	0.28	1.60	0.40	0.35	266	2.03
Stopray Titanium-34T	#2	Grey	92	34	23	6	12	68	0.26	1.5	0.29	1.65	0.28	1.60	0.26	0.23	176	1.48

1. These coatings must be heat-treated to reach their final performances and aesthetics. They can not be used annealed.
2. Edge deletion is required.
3. Shelf life 3 months.

All calculations were made with AGC Glass Configurator and are subject to fabrication tolerances and unit composition. For the most up-to-date performance data please visit AGC Glass Configurator available at www.agc-yourglass.com.

SUNLUX - SOLAR CONTROL

	Coating position	Colour	EN 410							EN 673	American Standards							
			Colour rendering index %	LT %	SF %	LR % Ext	LR % Int	EA %	SC		NFRC 100				NFRC 200 & NFRC 300			
											U-Factor Winter BTU/hr.ft².F	U-Factor Winter W/(m²K)	U-Factor Summer BTU/hr.ft².F	U-Factor Summer W/(m²K)	SC	SHGC	RHG W/m²	LSG
Monolithic application 6mm on Clear float																		
Sunlux BlueChroma	#2	Blue	98	23	32	21	28	61	0.37	4.8	0.86	4.87	0.74	4.22	0.41	0.36	294	0.64
Sunlux BronzeChroma	#2	Bronze	96	15	28	15	3	68	0.32	4.8	0.85	4.85	0.74	4.21	0.37	0.32	268	0.47
Sunlux Dark BlueChroma	#2	Dark blue	99	15	27	16	9	71	0.31	4.7	0.83	4.69	0.71	4.02	0.37	0.32	263	0.47
Sunlux Dark GreyChroma	#2	Dark grey	91	12	26	15	4	73	0.30	4.7	0.84	4.75	0.72	4.09	0.36	0.31	257	0.39
Sunlux Shadow 14	#2	Silver	97	15	24	37	35	55	0.27	4.7	0.84	4.75	0.72	4.09	0.31	0.27	229	0.48
Sunlux Shadow 20	#2	Silver	97	18	28	31	33	57	0.32	4.9	0.86	4.91	0.75	4.28	0.37	0.32	264	0.53
Sunlux Shadow 32	#2	Silver	97	30	39	21	31	55	0.45	5.1	0.91	5.17	0.80	4.56	0.49	0.43	346	0.63
Insulating double glazing unit 6-16-6 iplus Solid #3 with 100% Air																		
Sunlux BlueChroma	#2	Blue	96	17	20	21	22	69	0.23	1.5	0.32	1.84	0.28	1.57	0.25	0.22	170	0.77
Sunlux BronzeChroma	#2	Bronze	98	11	16	15	8	74	0.18	1.5	0.32	1.84	0.28	1.57	0.21	0.18	141	0.61
Sunlux GreenChroma	#2	Green	99	17	21	32	10	67	0.18	1.5	0.32	1.84	0.28	1.57	0.26	0.28	178	0.48
Sunlux Dark BlueChroma	#2	Dark blue	96	12	16	16	12	76	0.18	1.5	0.32	1.84	0.27	1.56	0.21	0.18	141	0.67
Sunlux Dark GreenChroma	#2	Dark green	96	11	16	20	11	76	0.18	1.5	0.32	1.84	0.27	1.56	0.21	0.18	140	0.61
Sunlux Dark GreyChroma	#2	Dark grey	95	9	14	15	9	77	0.16	1.5	0.32	1.84	0.28	1.56	0.18	0.16	131	0.56
Sunlux Shadow 14	#2	Silver	93	17	15	37	27	60	17	1.5	0.32	1.84	0.28	1.56	0.18	0.16	126	0.69
Sunlux Shadow 20	#2	Silver	93	14	18	31	26	63	0.21	1.6	0.32	1.84	0.28	1.57	0.22	0.19	148	0.74
Sunlux Shadow 32	#2	Silver	94	23	26	22	20	65	0.30	1.6	0.33	1.85	0.28	1.58	0.31	0.27	206	0.85
Sunlux Orion	#2	Amber	95	30	31	27	11	58	0.36	1.6	0.33	1.85	0.28	1.58	0.26	0.31	239	0.97
Sunlux Orion on Bronze	#2	Bronze	95	17	21	12	10	77	0.24	1.6	0.33	1.85	0.28	1.58	0.26	0.23	178	0.74
Sunlux Orion on Green	#2	Green	85	24	21	20	10	77	0.24	1.6	0.33	1.85	0.28	1.58	0.25	0.22	170	1.09
Sunlux Orion on Grey	#2	Grey	91	14	19	09	17	80	0.22	1.6	0.33	1.85	0.28	1.58	0.24	0.21	166	0.67
Insulating double glazing unit 6-12-6 iplus Solid #3 with 100% Air																		
Sunlux BlueChroma	#2	Blue	96	17	21	21	22	69	0.24	1.8	0.32	1.80	0.32	1.80	0.25	0.22	175	0.77
Sunlux BronzeChroma	#2	Bronze	98	11	17	15	8	74	0.20	1.8	0.32	1.80	0.32	1.80	0.21	0.18	147	0.61
Sunlux GreenChroma	#2	Green	99	17	22	32	10	67	0.25	1.8	0.32	1.81	0.32	1.80	0.26	0.23	183	0.74
Sunlux Dark BlueChroma	#2	Dark blue	96	12	16	16	12	76	0.18	1.8	0.32	1.80	0.32	1.79	0.21	0.18	147	0.67
Sunlux Dark GreenChroma	#2	Dark green	96	11	16	20	11	76	0.18	1.8	0.32	1.80	0.32	1.79	0.21	0.18	146	0.61
Sunlux Dark GreyChroma	#2	Dark grey	95	9	15	15	9	77	0.17	1.8	0.32	1.80	0.32	1.79	0.20	0.17	137	0.53
Sunlux Shadow 14	#2	Silver	93	11	15	37	27	60	0.17	1.8	0.32	1.80	0.32	1.79	0.19	0.16	132	0.69
Sunlux Shadow 20	#2	Silver	93	14	18	31	26	63	0.21	1.8	0.32	1.81	0.32	1.80	0.22	0.19	153	0.74
Sunlux Shadow 32	#2	Silver	93	23	26	22	20	65	0.30	1.8	0.32	1.81	0.32	1.81	0.31	0.27	211	0.85
Sunlux Orion	#2	Amber	95	30	31	27	11	58	0.36	1.8	0.32	1.81	0.32	1.81	0.37	0.32	243	0.94
Sunlux Orion on Bronze	#2	Bronze	95	17	21	12	10	77	0.24	1.8	0.32	1.81	0.32	1.81	0.26	0.23	184	0.74
Sunlux Orion on Green	#2	Green	85	24	21	20	10	77	0.24	1.8	0.32	1.81	0.32	1.81	0.25	0.22	176	1.09
Sunlux Orion Grey	#2	Grey	91	14	20	19	10	80	0.22	1.8	0.32	1.81	0.32	1.81	0.25	0.22	172	0.64
Insulating double glazing unit 6-16-6 Clear float with 100% Air																		
Sunlux BlueChroma	#2	Blue	98	21	24	22	30	64	0.28	2.3	0.42	2.41	0.42	2.38	0.31	0.27	212	0.78
Sunlux BronzeChroma	#2	Bronze	97	14	20	15	10	70	0.23	2.3	0.42	2.40	0.42	2.38	0.26	0.23	184	0.61
Sunlux GreenChroma	#2	Green	97	20	25	32	13	62	0.29	2.4	0.43	2.45	0.43	2.44	0.33	0.29	226	0.69
Sunlux Dark BlueChroma	#2	Dark blue	99	14	19	16	15	73	0.22	2.3	0.41	2.35	0.41	2.30	0.25	0.22	180	0.64
Sunlux Dark GreenChroma	#2	Dark green	99	13	19	20	15	73	0.22	2.3	0.41	2.34	0.40	2.30	0.25	0.22	179	0.59
Sunlux Dark GreyChroma	#2	Dark grey	92	11	18	15	11	74	0.21	2.3	0.42	2.37	0.41	2.33	0.24	0.21	172	0.52
Sunlux Shadow 14	#2	Silver	96	14	17	37	37	57	0.20	2.3	0.42	2.37	0.41	2.33	0.23	0.20	161	0.70
Sunlux Shadow 20	#2	Silver	93	14	18	31	26	63	0.21	1.8	0.32	1.81	0.32	1.80	0.22	0.19	153	0.74
Sunlux Shadow 32	#2	Silver	96	27	31	22	27	58	0.35	2.5	0.44	2.51	0.44	2.51	0.38	0.33	260	0.82
Sunlux Orion	#2	Amber	97	35	36	28	13	50	0.41	2.5	0.45	2.56	0.45	2.58	0.44	0.38	297	0.92
Sunlux Orion on Bronze	#2	Bronze	93	20	26	12	13	72	0.30	2.5	0.45	2.56	0.45	2.58	0.34	0.30	237	0.67
Sunlux Orion on Green	#2	Green	88	29	25	20	13	72	0.29	2.5	0.45	2.56	0.45	2.58	0.32	0.28	220	1.04
Sunlux Orion Grey	#2	Grey	94	17	24	10	13	76	0.28	2.5	0.45	2.56	0.45	2.58	0.32	0.28	224	0.61
Insulating double glazing unit 6-12-6 Clear float with 100% Air																		
Sunlux BlueChroma	#2	Blue	98	21	24	22	30	64	0.28	2.5	0.42	2.40	0.44	2.52	0.31	0.27	216	0.78
Sunlux BronzeChroma	#2	Bronze	97	14	20	15	10	70	0.23	2.5	0.42	2.40	0.44	2.52	0.26	0.23	188	0.61
Sunlux GreenChroma	#2	Green	97	20	26	32	13	62	0.30	2.5	0.43	2.45	0.45	2.57	0.33	0.29	229	0.69
Sunlux Dark BlueChroma	#2	Dark blue	99	14	20	16	15	73	0.23	2.4	0.41	2.34	0.43	2.45	0.26	0.23	184	0.61
Sunlux Dark GreenChroma	#2	Dark green	99	13	19	20	15	73	0.22	2.4	0.41	2.33	0.43	2.44	0.26	0.23	183	0.57
Sunlux Dark GreyChroma	#2	Dark grey	92	11	18	15	11	74	0.21	2.4	0.42	2.36	0.44	2.47	0.25	0.22	177	0.51
Sunlux Shadow 14	#2	Silver	96	14	18	37	37	57	0.20	2.4	0.42	2.36	0.44	2.47	0.23	0.20	164	0.70
Sunlux Shadow 20	#2	Silver	96	17	21	31	3.5	69	0.24	2.5	0.43	2.42	0.45	2.54	0.28	0.24	192	0.71
Sunlux Shadow 32	#2	Silver	96	27	31	22	27	58	0.36	2.6	0.44	2.51	0.46	2.64	0.39	0.34	263	0.79
Sunlux Orion	#2	Amber	97	35	36	28	13	50	0.41	2.7	0.45	2.57	0.48	2.70	0.44	0.38	300	0.92
Sunlux Orion on Bronze	#2	Bronze	93	20	26	12	13	72	0.30	2.7	0.45	2.57	0.48	2.70	0.34	0.30	240	0.67
Sunlux Orion on Green	#2	Green	88	29	25	20	13	72	0.29	2.7	0.45	2.57	0.48	2.70	0.32	0.28	223	1.04
Sunlux Orion on Grey	#2	Grey	94	17	24	10	13	76	0.28	2.7	0.45	2.57	0.48	2.70	0.33	0.29	227	0.59

1. These coatings must be heat-treated. In order to reach similar aesthetics, it is not recommended to mix annealed and head-treated glass on the same building.
2. No edge deletion is required.
3. Shelf life 12 months.

IPLUS, ENERGY - LOW EMISSIVITY

	Coating position	Colour	EN 410							EN 673	American Standards							
			Colour rendering index %	LT %	SF %	LR % Ext	LR % Int	EA %	SC	U _g -value W/(m²K)	NFRC 100				NFRC 200 & NFRC 300			
											U-Factor Winter BTU/hr.ft².F	U-Factor Winter W/(m²K)	U-Factor Summer BTU/hr.ft².F	U-Factor Summer W/(m²K)	SC	SHGC	RHG W/m²	LSG
Insulating double glazing unit 6-16-6 Clear float with 100% Air																		
iplus Solid	#2	Neutral	95	67	53	11	11	36	0.61	1.6	0.33	1.86	0.28	1.59	0.59	0.51	380	1.31
iplus AS	#2	Neutral	98	79	64	12	12	22	0.74	1.4	0.31	1.77	0.26	1.45	0.72	0.63	464	1.25
Energy Light	#2	Neutral	97	64	42	26	24	23	0.48	1.3	0.30	1.69	0.23	1.33	0.45	0.39	295	1.64
Energy 72/38T	#3	Neutral	95	71	47	14	13	29	0.54	2.3	0.29	1.67	0.23	1.28	0.49	0.43	321	1.65
Insulating double glazing unit 6-12-6 Clear float with 100% Air																		
iplus Solid	#2	Neutral	95	67	53	11	11	36	0.61	1.8	0.32	1.82	0.32	1.82	0.59	0.51	384	1.31
iplus AS	#2	Neutral	98	79	64	12	12	22	0.74	1.7	0.30	1.73	0.30	1.70	0.72	0.63	467	1.25
Energy Light	#2	Neutral	97	64	42	26	24	23	0.48	1.5	0.29	1.65	0.28	1.59	0.46	0.40	298	1.60
Energy 72/38T	#3	Neutral	95	71	47	14	13	29	0.54	1.5	0.29	1.62	0.27	1.55	0.49	0.43	322	1.65
iplus Solid: 1. This coating must be heat-treated to reach its final performances and aesthetics. It can not be used annealed. 2. No edge deletion is required. 3. Shelf life 9 months.			iplus AS, Energy Light: 1. These coatings can be heat-treated before use. In order to reach similar aesthetics, it is not recommended to mix annealed and heat-treated glass on the same building. 2. Edge deletion is required. 3. Shelf life 3 months.								Energy 72/38T: 1. This coating must be heat-treated to reach its final performances and aesthetics. It can not be used annealed. 2. Edge deletion is required. 3. Shelf life 3 months.							
Building Codes	Dubai Municipality			Estidama (Abu Dhabi)		Saudi Arabia				Bahrain				Kuwait				
						SBC 601*			SBC 602**									
WWR	0 - 40%	41 - 60%	61 - 100%	R1	R2	0 - 40%	41 - 50%	51 - 100%	-	0 - 40%	41 - 100%	skylight	showroom	16 - 50%	51 - 100%			
LT min	0.25	0.10	0.10	-	-	-	-	-	-	0.25	0.20	0.10	-	0.24	0.23			
SC max	0.40	0.32	0.25	-	-	-	-	-	-	0.40	0.30	0.25	0.76	-	-			
SHGC max	-	-	-	0.4	0.3	0.25	0.25	0.25	0.25	-	-	-	-	0.25	0.53			
U-Value max (W/m²K)	2.1	1.9	1.9	1.8	1.5	2.89	2.38	1.87	2.66	2.1	1.9	1.9	1.9	3.33	2.00			