SOLARSHIELD®

laminated reflective coated safety glass

Solarshield® makes it possible to create attractive buildings with highly efficient solar control. The combination of a metallic coating and a clear or tinted PVB (polyvinyl butyral) interlayer is designed primarily to keep out as much of the sun's heat as possible. In addition to reducing solar heat, Solarshield® also limits the amount of light entering the interior and blocks up to 99% of damaging UV radiation.

Solarshield® is a laminated safety glass marked to SABS 1263-1. It can be custom-manufactured to meet various safety, security and noise reduction standards. Solarshield® is available in a range of colours and three densities of coating. The numbers S10/S20/S30 refer to the light transmission of the coating, which in turn is directly proportional to the amount of solar heat entering the building. For example, S10 indicates 10% light transmission on coated glass prior to lamination.

suggested applications

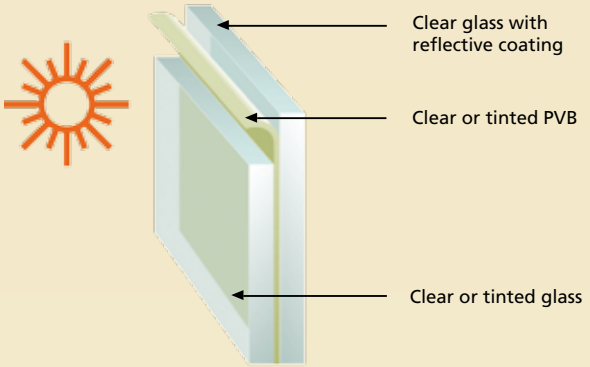
- Maximum solar energy control
- Curtain walls
- External solar screens
- Skylights
- Glare reduction in buildings
- Glazed partitions and screens
- 'One way' vision panels
- Reflective glass for wall cladding
- Decorative safety mirrors
- Lift interiors

coating: glazing guide

Solarshield is a sided product, meaning that its appearance will vary when viewed from different sides. Care must be exercised when cutting and glazing to ensure a uniform appearance. Stock sheets are labelled by the factory to indicate the coated side. Solarshield Silver is best installed with the coating towards the sun. Tinted Solarshield products are normally glazed with the tinted side facing the sun. If optimum light and solar control are required, the silver side should be placed outside. For one-way vision, the tinted side must face the observer.

edge working

The edges of all heat absorbing glass should be polished to reduce the possibility of thermal breakage. The edges must be free of vented damage. These edges may be produced by a straight line polishing machine. Contact SmartGlass for a detailed thermal stress warranty.



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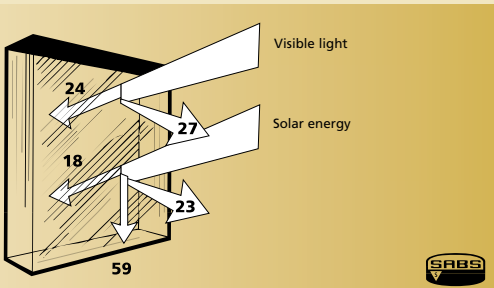
environmental influences

The visual appearance of coated glasses is determined not only by the colour of the glass and the coating. It is also influenced by environmental factors such as solar angle, ambient light level and quality, reflections in the glass, and the viewing angle. The nature of coated glass makes it imperative to assess the true colour and reflectance of the proposed product in the context of an existing building, failing which in a full-scale mock-up, before a final selection is made. SmartGlass is available to assist in this process.



Solarshield S20 Silver

sizes

	6.38 mm NS	6.76 mm HPR	7.52 mm HI	8.38 mm NS	8.76 mm HPR	9.52 mm HI
Aquamarine	S	S	S	S	S	S
Blue	S	S	S	S	S	S
Bronze	S	S	S	S	S	S
Grey	S	S	S	S	S	S
Regal Blue	S	S	S	S	S	S
Serene Green	R	R	R			
Silver	S	S	S	S	S	S
Standard sizes (mm)	2440 x 2000	2440 x 2000	2440 x 2000	3700 x 2440 3100 x 2440	3700 x 2440 3100 x 2440	3700 x 2440 3100 x 2440

S = Available as standard; R = Available on request subject to order quantity
Contact SmartGlass if another thickness is required.

performance data

PERFORMANCE data		VISIBLE LIGHT		SOLAR ENERGY					SHADING COEFFICIENT	U VALUE	UV	NOISE CONTROL	SAFETY	SECURITY	
SOLARSHIELD™	range	transmission	reflection	total elimination	reflectance	absorption	direct transmission	total transmission	ratio	(W/m²).K	elimination %	ISO rating / STC value	rating (see below)	rating (see below)	
Aquamarine	S10	9	27	75	26	67	7	25	0.29	5.8	99	33	1	1	***SOLARSHIELD™***
	S20	19	19	67	18	67	15	33	0.38	5.8	99	33	1	w	
	S30	29	12	59	13	63	24	41	0.47	5.8	99	33	1	1	
Blue	S10	9	30	75	29	63	8	25	0.28	5.8	99	33	1	1	
	S20	20	20	67	20	64	16	33	0.38	5.8	99	33	1	1	
	S30	30	14	59	14	62	24	41	0.47	5.8	99	33	1	1	
Bronze	S10	7	17	74	19	75	6	26	0.30	5.8	99	33	1	1	
	S20	14	12	68	13	75	12	32	0.37	5.8	99	33	1	1	
	S30	21	9	62	10	71	19	38	0.44	5.8	99	33	1	1	
Grey	S10	5	14	74	18	77	5	26	0.30	5.8	99	33	1	1	
	S20	12	10	68	13	75	12	32	0.36	5.8	99	33	1	1	
	S30	18	8	63	10	73	17	37	0.42	5.8	99	33	1	1	
Regal Blue	S10	8	22	75	25	68	7	25	0.29	5.8	99	33	1	1	
	S20	14	15	68	17	69	14	32	0.37	5.8	99	33	1	1	
	S30	24	11	60	12	66	22	40	0.46	5.8	99	33	1	1	
Silver	S10	11	41	77	38	53	9	23	0.26	5.8	99	33	1	1	
	S20	24	27	66	23	59	18	34	0.39	5.8	99	33	1	1	
	S30	35	18	58	16	57	27	42	0.48	5.8	99	33	1	1	
Solarshield Serene Green	S10	11	34	74	19	74	7	26	0.30	5.8	99	33	1	1	
Solarshield Serene Green	S20	23	22	67	13	73	14	33	0.38	5.8	99	33	1	1	
Solarshield Serene Green	S30	36	14	60	10	69	21	40	0.46	5.8	99	33	1	1	

SAFETY AND SECURITY RATINGS: 1. Normal Strength (NS) for human impact safety (0.38 mm PVB interlayer); 2. High Penetration Resistant (HPR) for additional security (0.76 mm PVB interlayer); 3. High Impact (HI) for security in high-risk applications (1.52 mm PVB interlayer). SABS 1263 compliance: Ratings 1,2 and 3: compliance with SABS 1263-1. Rating 3: compliance with SABS 1263-2.

NOTES: 1. This data is based on tests conducted on 6.38 mm thick laminated glass. 2. To avoid the possibility of thermal stress fracture, it is always advisable to request that a thermal stress evaluation be conducted by SmartGlass. 3. Shading coefficients and U-Values are calculated using ASHRAE summer daytime conditions. 4. All values are given as an indication. Slight variations may occur due to the manufacturing tolerances.