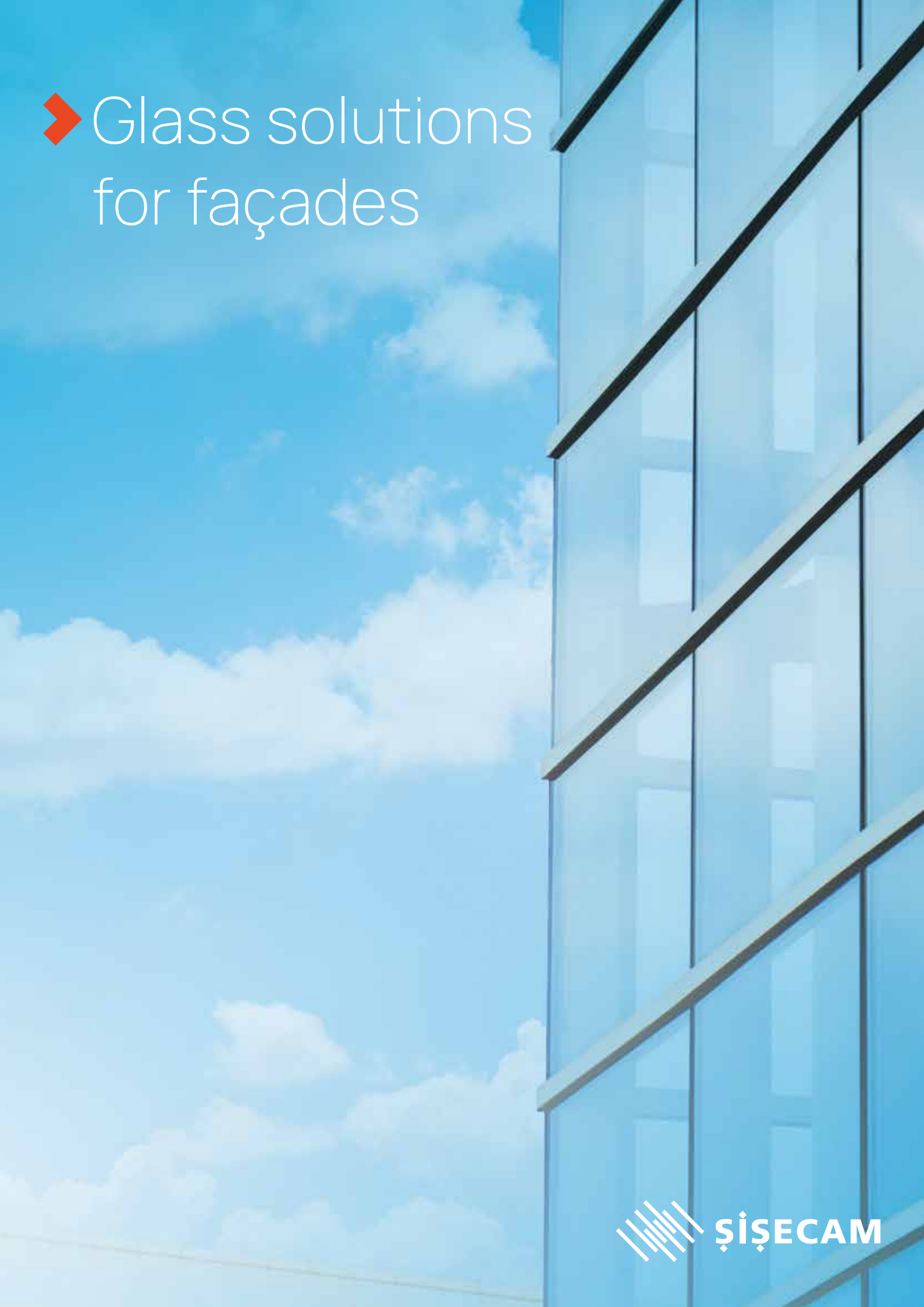
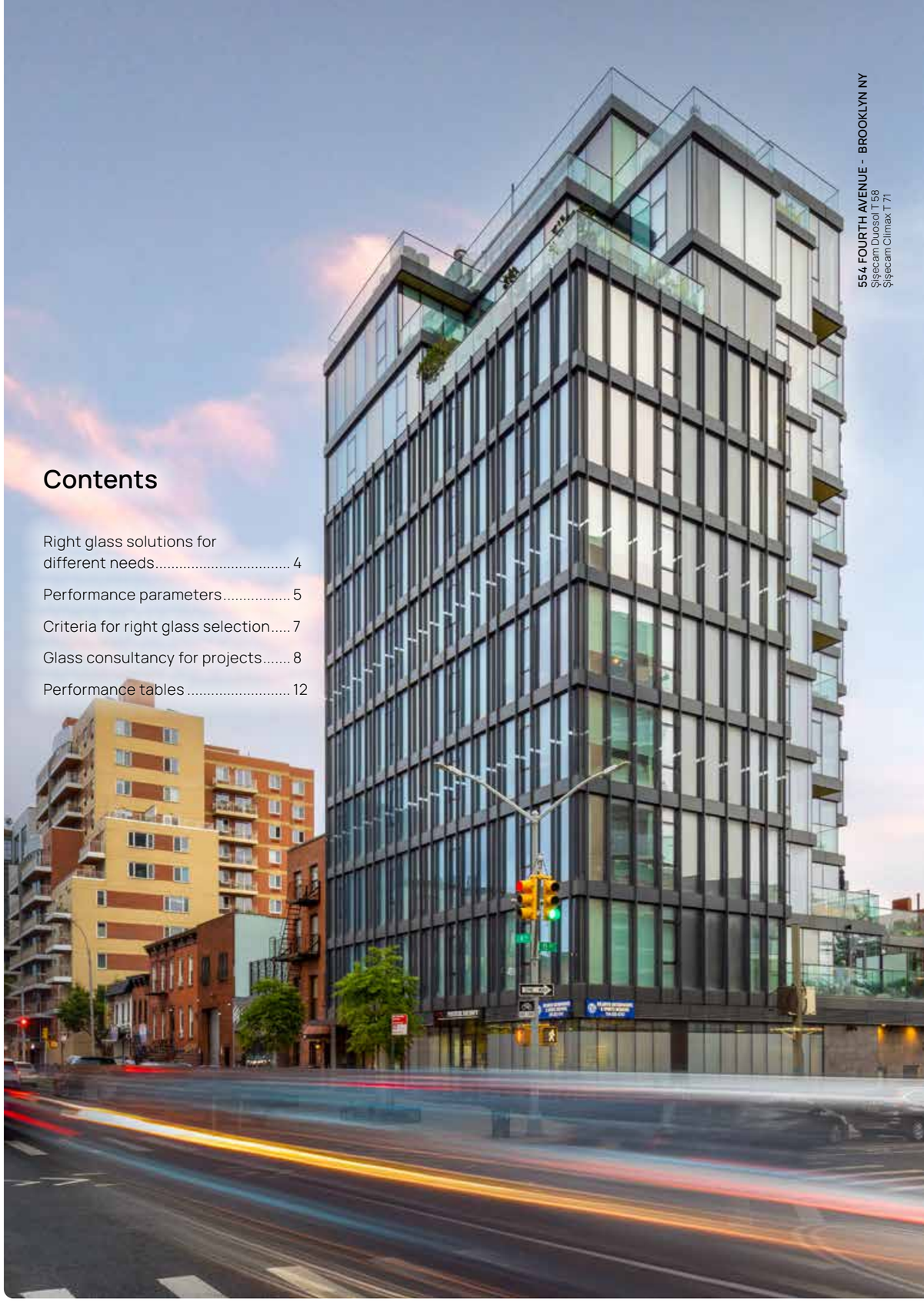
Glass solutions for façades



ŞİŞECAM



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Right glass solutions for different needs

Coated glass is produced using two different methods: **off-line** and **on-line.** Off-line coated glass, including low-E (Şişecam Climax), temperable low-E (Şişecam Climax T), solar low-E (Şişecam Climax Select, Şişecam Ecosol, Şişecam Duosol), temperable solar low-E (Şişecam Ecosol T, Şişecam Duosol T, Şişecam Prosol T) is produced by depositing multi-layered metals/ metal oxides onto float or tinted glass through "magnetically enhanced vacuum sputtering" technology. On-line coated glass, including Şişecam Tentesol and Tentesol Titanium, is produced by applying a thin, reflective, mechanically, and chemically resistant pyrolytic hard coating onto clear float glass or tinted glass.



Şişecam Climax and Climax T are **heat** control glass. Thanks to its low-E coating, they prevent heat loss through the glazing. For maximum thermal insulation, triple insulating glass units with Şişecam Climax or Climax T in both the outer and inner panes are recommended.



Şişecam Tentesol and Tentesol Titanium are **reflective solar** control glasses. Thanks to their coating, it reduces solar heat gain in the summer. It can be used as a monolithic glass or incorporated into an insulating glass unit. When combined with Şişecam Climax or Climax T in an insulating glass unit, it provides both heat control and solar control.

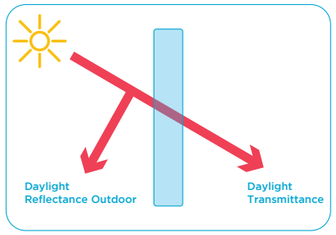


Şişecam Climax Select, Ecosol, Duosol, Ecosol T, Duosol T and Prosol T product series are **heat** and **solar** control glasses. Thanks to its solar low-E coating, it provides effective thermal insulation by preventing heat loss in the winter and reduces solar heat gain in the summer. For maximum thermal insulation and solar control, triple-insulating glass units are recommended, using solar low-E coating on the outer pane, and low-E coating on the inner pane.



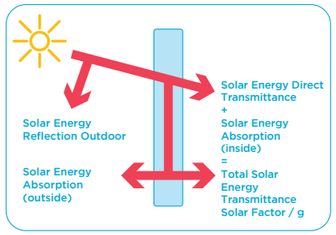
Şişecam Climax T and Ecosol T, Duosol T and Prosol T provide **safety** due to their temperability, while retaining the low-E and solar low-E properties of their coatings. When broken, they shatter into small, blunt pieces, minimizing the risk of injury. They are resistant to distributed loads up to 5 times more than standard glass.

Performance parameters

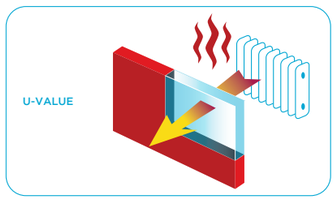


Daylight Transmittance (%)
The percentage of visible light transmitted through the glass.

Daylight reflectance outdoor (%)
The percentage of visible light reflected outside by the glass.



Solar Factor (g-value) (%)
The percentage of total solar radiant heat energy passing through the glass. A lower solar factor indicates better solar control. The other solar control parameter, the shading coefficient, is the ratio of the solar factor of a particular glass type to that of 3 mm clear float glass (0.87) under identical conditions.



Thermal Conductivity (U-value) (W/m^2K)
A measure of the rate of heat loss through a building component. A lower U value means better heat control and greater comfort in winter.



Colour Rendering Index (Ra) (%)
Describes how much an object's colour changes when viewed through the glazing. A higher colour rendering index means the object's colours appear more natural.



ISTANBUL AIRPORT AND AIR TRAFFIC CONTROL TOWER
Şişecam Duosol T (Special Production)

Criteria for right glass selection

- Project function
- Project location
- Glass dimensions and thicknesses
- Wind / snow loads
- Sunshade elements on the façade
- Sun exposure of the façade
- Mechanical performances
- Visual impact

The above criteria should be taken into consideration when choosing the right glass.

The choice of glass for the façade is driven by functional needs such as heat control or both heat and solar control, depending on the climate zone, to ensure effective energy savings. In addition to these functional needs, factors such as safety, security, noise control, daylight transmittance, glare, and reflection control, as well as the desired visual effect requirements, also influence the selection of glass.



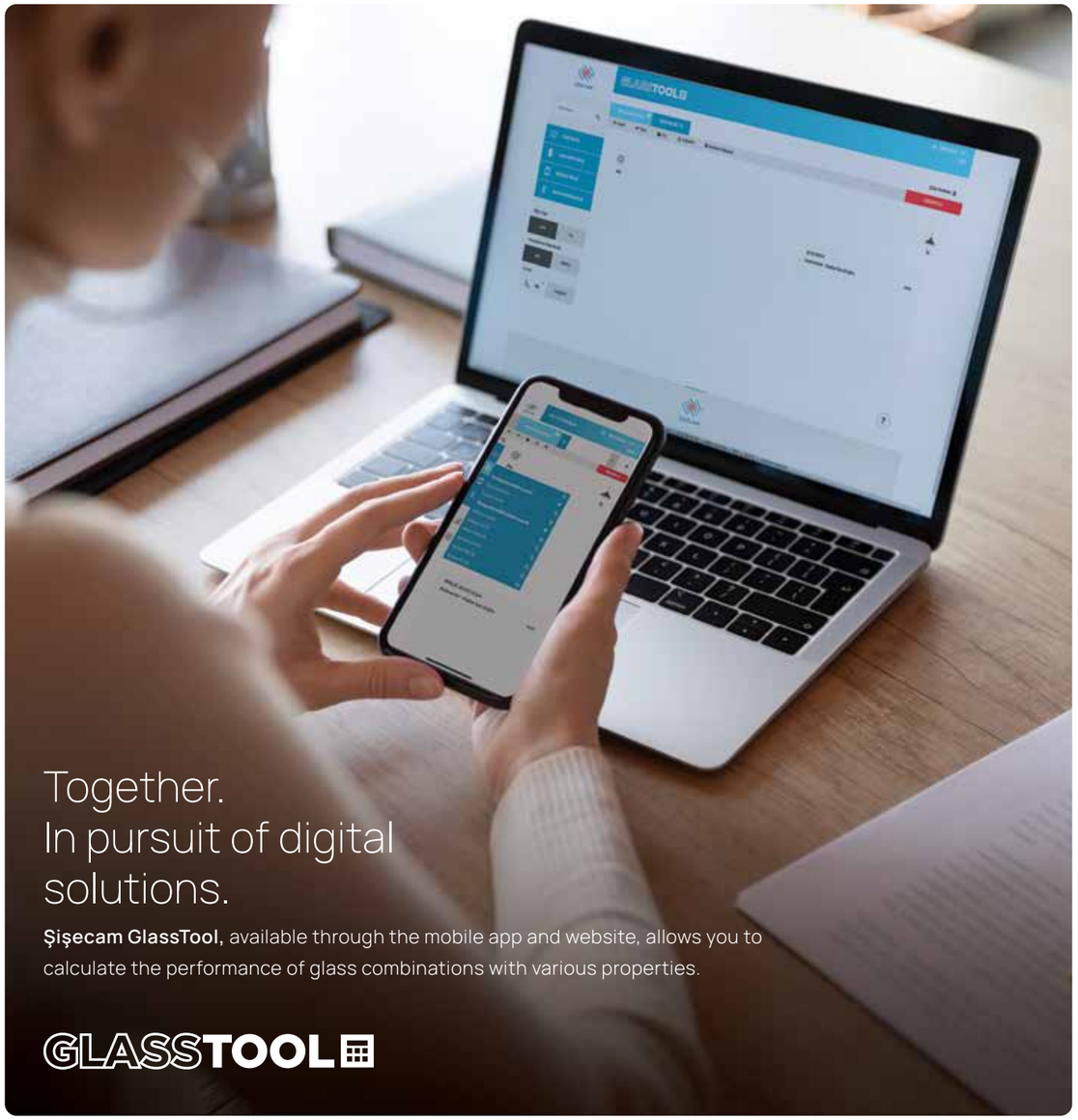
275 FOURTH AVENUE
Şişecam Ecosol T 50

Glass consultancy for projects

Şişecam Glass Consultancy is here with the right glass solutions for your project! Our experienced team provides Glass Consultancy for your projects and develops solutions for your project requirements.

Within the Scope of Glass Consultancy:

- We make static, thermal breakage risk, and performance calculations for the projects.
- We provide a glass specification draft based on the calculations.
- We offer the right Glass Consultancy for the project's requirements.
- We supply samples and mock-up support for projects.
- We share our know-how about glass through trainings.



Right glass solutions for your projects

BIM files are just a click away!



MATILD PALACE
Şişecam Dusoll T 58
Şişecam Climax T 71

Şişecam offers environmentally sensitive and innovative solutions as part of its CareforNext sustainability strategy.

Following the "product life cycle analysis (LCA)" carried out for all products in the flat glass product portfolio, "Environmental Product Declarations (EPD)" certificates have been obtained for 11 product groups.

EPD®
THE INTERNATIONAL EPD® SYSTEM

TURKEY EPD®
THE INTERNATIONAL EPD® SYSTEM



Performance tables

Low-E Glass (Heat control)

4+16+4 mm, coating on surface #3 (Coating can be used on the 2nd or 3rd surface of the insulating glass unit.)	Applications	Daylight (EN 410)			Colour rendering index %	Solar energy (EN 410)					Thermal conductivity (U value) W/m²K (EN 673)
		Transmittance %	Reflectance outdoor %	Reflectance indoor %		Direct transmittance %	Reflectance outdoor %	Absorption %	Solar factor (g value) %	Shading coefficient	Argon
Şişecam Climax produced in Türkiye and Bulgaria	Residences and small/medium-sized commercial buildings where heat control is required	79	12	12	97	53	28	19	61	0.7	1.1
Şişecam Climax[1] produced in Italy	Residences and small/medium-sized commercial buildings where heat control is required	79	15	12	98	54	28	18	64	0.73	1.1
Şişecam Climax One[1]	Residences and small/medium-sized commercial buildings where heat control is required	70	19	22	97	45	37	18	53	0.61	**1.0**
NEW Şişecam Climax 82[1][2]	Residences and small/medium-sized commercial buildings where heat control is required	82	12	12	97	57	27	16	64	0.74	1.1

[1] Applied on Şişecam Extra Clear substrate.

[2] Available both tempered and annealed options with the same color and performance.

Solar Low-E Glass (Heat and solar control)

4+16+4 mm, coating on surface #2	Applications	Daylight (EN 410)			Colour rendering index %	Solar energy (EN 410)					Thermal conductivity (U value) W/m²K (EN 673)
		Transmittance %	Reflectance outdoor %	Reflectance indoor %		Direct transmittance %	Reflectance outdoor %	Absorption %	Solar factor (g value) %	Shading coefficient	Argon
Şişecam Climax Select produced in Türkiye	Residences and small/medium-sized commercial buildings where air conditioning is needed, and both heat and solar control at the same time	72	10	12	97	42	30	28	45	0.51	1.1
Şişecam Climax Select[1] produced in Italy	Residences and small/medium-sized commercial buildings where air conditioning is needed, and both heat and solar control at the same time	72	11	12	97	41	31	28	44	0.50	1.1
Şişecam Climax Select One produced in Bulgaria	Residences and small/medium-sized commercial buildings where air conditioning is needed, and both heat and solar control at the same time	66	25	21	97	42	39	19	44	0.51	**1.0**
Şişecam Climax Select One[1] produced in Italy	Residences and small/medium-sized commercial buildings where air conditioning is needed, and both heat and solar control at the same time	66	27	22	97	42	43	15	45	0.51	**1.0**
Şişecam Climax Select 35 One[1][4]	Residences and small/medium-sized commercial buildings where air conditioning is needed, and both heat and solar control at the same time	69	15	14	96	35	43	22	36	0.42	1.0

[1] Applied on Şişecam Extra Clear substrate.

[4] The g value of the product is 35 for the 33.1 + 16 + 33.1 combination.

Temperable Low-E Glass (Heat control & safety) [3]

4+16+4 mm, coating on surface #3	Applications	Daylight (EN 410)			Colour rendering index %	Solar energy (EN 410)					Thermal conductivity (U value) W/m²K (EN 673)
		Transmittance %	Reflectance outdoor %	Reflectance indoor %		Direct transmittance %	Reflectance outdoor %	Absorption %	Solar factor (g value) %	Shading coefficient	Argon
NEW Şişecam Climax T 82[2]	Residences, schools, hotels, hospitals, and display windows, etc. where transparency and low reflectivity are required in addition to effective heat control, are especially important in cold climate zones	82	12	12	97	58	28	15	64	0.74	1.1

[2] Available both tempered and annealed options with the same color and performance.

[3] Must be used as tempered to reach its final performances, can not be used as annealed.

Temperable Low-E Glass (Heat control & safety) [3]

6+16+6 mm, coating on surface #2	Applications	Daylight (EN 410)			Colour rendering index %	Solar energy (EN 410)					Thermal conductivity (U value) W/m²K (EN 673)
		Transmittance %	Reflectance outdoor %	Reflectance indoor %		Direct transmittance %	Reflectance outdoor %	Absorption %	Solar factor (g value) %	Shading coefficient	Argon
Şişecam Climax T 71	Residences, schools, hotels, hospitals, etc., where maximum transparency is required in addition to heat control in cold climate zones	71	19	16	96	46	26	28	51	0.58	1.1
Şişecam Climax T 36 Grey	Projects in hot climate regions and skylights where controlled daylight transmittance, heat and solar control are required	34	8	14	93	25	12	64	29	0,34	1.1
Şişecam Climax T 41 Bronze		42	9	15	94	28	13	60	32	0.37	1.1

[3] Must be used as tempered to reach its final performances, can not be used as annealed.

Solar Low-E Glass (Heat and solar control)

6+16+6 mm, coating on surface #2	Applications	Daylight (EN 410)			Colour rendering index %	Solar energy (EN 410)					Thermal conductivity (U value) W/m²K (EN 673)
		Transmittance %	Reflectance outdoor %	Reflectance indoor %		Direct transmittance %	Reflectance outdoor %	Absorption %	Solar factor (g value) %	Shading coefficient	Argon
Şişecam Duosol 70 One [1][2]	Boutique hotels, villas, display windows, etc. where high light transmission, heat and solar control, transparency, and low reflection are required	71	14	14	94	35	37	27	38	0.43	**1.0**
Şişecam Duosol 70 [1][2]	Boutique hotels, villas etc. where high light transmission, heat and solar control, transparency, and low reflection are required	71	11	12	93	38	28	34	41	0.47	1.1
Şişecam Duosol 50 One [1][2]	Offices, hotels, hospitals, etc. where optimum light transmission, heat and effective solar control are required for glare and flare control	49	15	14	94	24	33	42	27	0.31	**1.0**
NEW Şişecam Duosol 35 One [1][2]	Residences, hotels, villas, etc., where high light transmittance, effective heat and solar control are required	67	16	15	96	33	40	26	35	0.41	1,0
Şişecam Ecosol 62 [1][2]	Residences, schools, etc. where high light transmission, heat and solar control are required depending on the glass ratio on the façade	64	24	20	96	40	34	26	43	0.50	1.1
Şişecam Ecosol 50 [1][2]	Offices, hotels, hospitals, etc. where optimum light transmission, heat and effective solar control are required for glare and flare control	51	33	24	89	31	37	32	34	0.39	1.1

[1] Applied on Şişecam Extra Clear substrate.

[2] Available both tempered and annealed options with the same color and performance.

Temperable Solar Low-E Glass (Heat and solar control & safety) (3)

6 mm + 16 mm Argon + 6 mm, coating on surface #2	Applications	Daylight (EN 410)			Colour rendering index %	Solar energy (EN 410)					Thermal conductivity (U value) W/m²K (EN 673)
		Transmittance %	Reflectance outdoor %	Reflectance indoor %		Direct transmittance %	Reflectance outdoor %	Absorption %	Solar factor (g value) %	Shading coefficient	Argon
Şişecam Prosol T 60 One(1)	Residences, schools, hotels etc., where high light transmittance depending on the glass ratio on the façade, effective heat and solar control, transparency and low reflection are required	62	14	14	92	27	36	36	29	0.33	**1.0**
Şişecam Duosol T 70 One(1)(2)	Residences, boutique hotels, villas, etc., where high light transmittance, effective heat control, solar control, transparency, and low reflection are required	71	13	13	93	35	37	28	37	0.43	**1.0**
Şişecam Duosol T 70(1)(2)	Residences, boutique hotels, villas etc., where high light transmittance, heat and solar control, transparency, and low reflection are required	71	11	12	94	38	30	32	41	0.47	1.1
Şişecam Duosol T 58(1)	Residences, schools, etc., where high light transmittance depending on the glass ratio on the façade, heat and solar control are required	60	19	18	92	30	35	35	32	0.37	1.1
Şişecam Duosol T 51(1)	Offices, hotels, hospitals, etc., where optimum light transmittance for glare control, heat and effective solar control are required	51	24	17	93	26	32	42	29	0.33	1.1
Şişecam Duosol T 50 One(1)(2)	Offices, hotels, hospitals, etc., where optimum light transmittance for glare control, effective heat and solar control are required	50	16	15	93	24	36	39	27	0.31	**1.0**
Şişecam Duosol T 50	Offices, hotels, hospitals, etc. where optimum light transmittance for glare control, heat and effective solar control are required	49	16	18	89	23	32	45	26	0.30	1.1
Şişecam Duosol T 40 One(1)	Projects in hot climate regions and skylights where controlled daylight transmittance, effective heat and solar control are required	41	20	14	89	20	36	44	22	0.26	**1.0**
NEW Şişecam Duosol T 35 One(1)(2)	Residences, hotels, villas, etc., where high light transmittance, effective heat and solar control are required	67	16	15	96	33	40	26	35	0.41	**1.0**
Şişecam Ecosol T 62(1)(2)	Residences, schools, etc., where high light transmittance depending on the glass ratio on the façade, heat and solar control are required	65	24	21	95	40	34	25	43	0.50	1.1
Şişecam Ecosol T 31 Grey	Projects in hot climate regions and skylights where controlled daylight transmittance, heat and effective solar control are required	31	9	19	92	21	14	65	25	0,29	1.1
Şişecam Ecosol T 35 Bronze		37	11	19	94	23	16	61	27	0.31	1.1
Şişecam Ecosol T 50(1)(2)	Offices, hotels, hospitals, etc. where optimum light transmittance for glare control, heat and effective solar control are required	50	32	24	88	30	37	32	33	0.38	1.1
Şişecam Ecosol T 28 Grey	Projects in hot climate regions and skylights where controlled daylight transmittance, heat and effective solar control are required	24	11	22	86	15	15	70	19	0,22	1.1
Şişecam Ecosol T 31 Bronze		29	14	22	92	17	17	66	21	0.24	1.1
Şişecam Ecosol T 43(1)	Projects in hot climate regions and skylights where controlled daylight transmittance, heat and effective solar control are required	45	35	26	88	26	41	32	29	0.33	1.1
Şişecam Ecosol T 21 Grey	Projects in hot climate regions and skylights where controlled daylight transmittance, heat and effective solar control are required	21	11	25	86	13	16	71	17	0,2	1.1
Şişecam Ecosol T 24 Bronze		26	15	25	92	15	18	67	19	0.21	1.1
Şişecam Ecosol T 40 Deep Blue	Projects in hot climate regions and skylights where controlled daylight transmittance, heat and effective solar control are required with its blue color effect from coating	38	18	24	92	24	17	60	28	0.32	1.1
Şişecam Ecosol T 40 Deep Green	Projects in hot climate regions and skylights where controlled daylight transmittance, heat and effective solar control are required with its green color effect from coating	40	37	27	95	25	26	49	28	0.33	1.1
NEW Şişecam Ecosol T 40 Deep Amber	Projects in hot climate regions and skylights where controlled daylight transmittance, heat and effective solar control are required with its amber color effect from coating	39	30	18	84	24	38	38	27	0.32	1.1
NEW Şişecam Ecosol T 35 Deep Silver	Projects in hot climate regions and skylights where controlled daylight transmittance, heat and effective solar control are required with its silver color effect from coating	35	44	23	92	22	43	35	25	0.29	1.1

(1) Applied on Şişecam Extra Clear substrate.

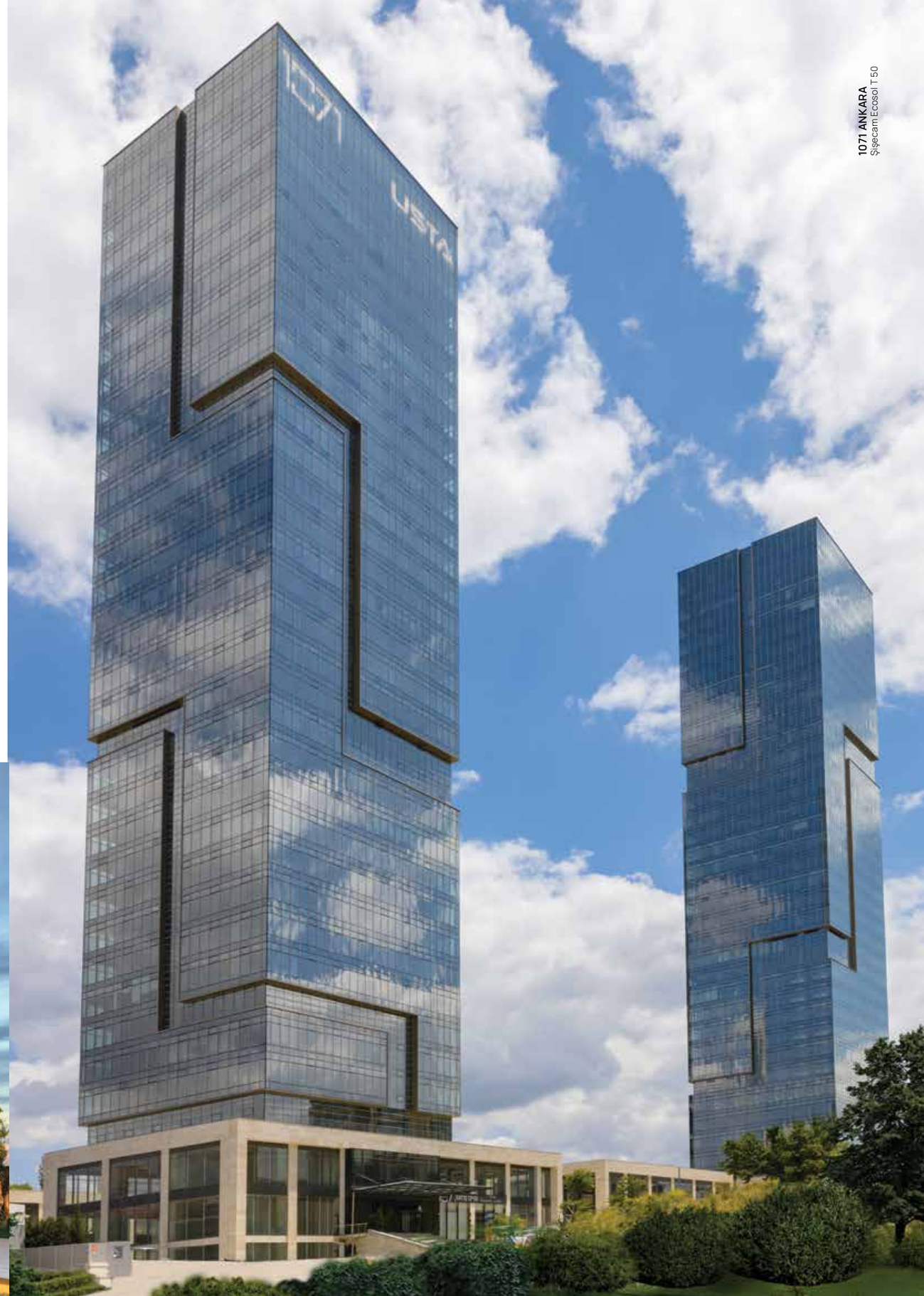
(2) Available both tempered and annelead options with the same color and performance.

(3) Must be used as tempered to reach its final performances, can not be used as annealed.

Reflective Glass (Solar control) [4]

6+16+6 mm (reflective coating on surface #2, Şişecam Climax on surface #3)	Daylight (EN 410)			Colour rendering index %	Solar Energy (EN 410)					Thermal conductivity (U value) W/m²K (EN 673)
	Transmittance %	Reflectance outdoor %	Reflectance indoor %		Direct transmittance %	Reflectance outdoor %	Absorption %	Solar factor (g value) %	Shading coefficient	Argon
Şişecam Tentesol Silver	35	29	30	95	25	32	43	31	0.36	1.1
Şişecam Tentesol Green	28	21	30	92	14	13	73	19	0.22	1.1
Şişecam Tentesol Blue	21	14	30	86	13	12	75	19	0.21	1.1
Şişecam Tentesol Grey	18	11	30	95	14	14	72	20	0.23	1.1
Şişecam Tentesol Bronze	21	13	30	87	15	15	70	21	0.24	1.1
Şişecam Tentesol Titanium Silver[5]	59	33	30	98	39	36	25	47	0.54	1.1
Şişecam Tentesol Titanium Green[5]	47	23	29	88	24	14	62	29	0.34	1.1
Şişecam Tentesol Titanium Blue[5]	36	16	29	81	22	13	65	28	0.32	1.1
Şişecam Tentesol Titanium Grey[5]	30	12	29	94	22	16	63	28	0.33	1.1

[4] Prevents solar heat transmission into buildings, controls the luminosity of sunlight and used in commercial buildings such as hospitals, offices, and shopping malls.
Thanks to its reflectivity, it offers a uniform appearance for buildings with curtain walls by covering background features.
Recommended to be used as toughened or heat strengthened to avoid thermal breakage risks.



1071 ANKARA
Şişecam Ecosol T 50



ANTİK DANTEL HQ
Şişecam Tentesol Bronze

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