

# Stopray

magnetron coated glazings combining solar control and low emissivity



## You have printed

Titanium 37T, Indigo 48T, Lime 61T, Energy N, Energy NT, Galaxy on Clearvision, Silver 43/25, Vision-50, Vision-50T, Vision-60T, Safir 61/32, Elite 67/37, Vision-36T, Ultravision-50



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## Stopray

Solar-control glazing with thermal insulation

The solar control function is achieved by applying a selective metal coating.

- High light transmission, low solar heat throughput
- Stopray solar-control glazing with thermal insulation is ideal for all climates: combines solar control in summer with thermal insulation in winter
- Various colours, including an extraordinary neutral, low light-reflection range

Application: always in double glazed units. Monolithic glass available to processors

### Benefits

- High level of light transmission, low level of internal solar heat throughput
- Selectivity (relationship between LT and SF = maximum 2): excellent for the range of neutral colours
- Stopray solar-control glazing with thermal insulation is suitable for use in all climates: combines solar control in the summer with thermal insulation in the winter. Particularly well suited to tertiary buildings with at the same time keeping energy costs to a minimum
- Finish: wide range of light reflection and light transmission levels
- Look: different colours, extensive range of neutral colours

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### Titanium 37T

Body tinted grey glass with a high performance toughenable coating. Superb light and energy performance, it is an all-climate glass. Low interior and exterior light reflection rating give it an attractive colour. Its coating can withstand the toughening process and can be curved and enamelled. Substantial asset for glass processors looking for adapted logistical solutions.

Enjoy the performances of combining AGC's soft and hard coatings...a whole range of 0.9 U-g value products! By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m<sup>2</sup>.K)!



### Performances

#### Titanium 37T

Structure	Light properties (EN 410)		Thermal properties (EN 673)			
	LT%	LR%	EA%	SFSF	SCSF	
6  - 12 Air - 6	36	6	64	28.0	0.32	1.5
6  - 12 Ar 90% - 5	37	6	64	27.0	0.31	1.2
6  - 12 Ar 90% - 6	36	6	64	27.0	0.31	1.2
6  - 15 Air - 6	36	6	64	27.0	0.31	1.3
6  - 15 Ar 90% - 4	37	6	64	26.0	0.3	1.0
6  - 15 Ar 90% - 6	36	6	64	26.0	0.3	1.0
6  - 16 Ar 90% - 4	37	6	64	26.0	0.3	1.0

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### Indigo 48T

Dark Blue body-tinted glass with a toughenable, high-performance coating. Excellent light and energy performance, making it an ideal all-climate glass. Low interior and exterior light reflection give it a pleasing colour. The high-performance coating can be toughened, bent and screen-printed. A significant benefit for processors looking for the right logistical solutions to their needs.

Enjoy the performances of combining AGC's soft and hard coatings....a whole range of 0.9 U-g value products! By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m<sup>2</sup>.K)!



### Performances

#### Indigo 48T

Structure	Light properties (EN 410)		Thermal properties (EN 673)			
	LT%	LR%	EA%	SFSF	SCSF	
6  - 12 Air - 6	48	8	67	30.0	0.34	1.5
6  - 12 Ar 90% - 6	48	8	67	29.0	0.33	1.2
6  - 15 Air - 6	48	8	67	29.0	0.33	1.3
6  - 15 Ar 90% - 4	48	8	66	29.0	0.33	1.0
6  - 15 Ar 90% - 6	48	8	67	29.0	0.33	1.0
6  - 16 Ar 90% - 4	48	8	66	29.0	0.33	1.0

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### Lime 61T

Body tinted green glass with a high performance toughenable coating. Superb light and energy performance, it is an all-climate glass. Low interior and exterior light reflection rating give it an attractive colour. Its coating can withstand the toughening process and can be curved and enamelled. Substantial asset for glass processors looking for adapted logistical solutions.

Enjoy the performances of combining AGC's soft and hard coatings...a whole range of 0.9 U-g value products! By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m<sup>2</sup>.K)!



## Performances

### Lime 61T

Structure	Light properties (EN 410)		Thermal properties (EN 673)			
	LT%	LR%	EA%	SFSF	SCSF	
6  - 12 Air - 6	60	10	63	33.0	0.38	1.5
6  - 12 Ar 90% - 6	60	10	63	32.0	0.37	1.2
6  - 15 Air - 6	60	10	63	33.0	0.38	1.3
6  - 15 Ar 90% - 4	61	10	63	32.0	0.37	1.0
6  - 15 Ar 90% - 6	60	10	63	32.0	0.37	1.0
6  - 16 Ar 90% - 4	61	10	63	32.0	0.37	1.0

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### Energy N

Features a highly neutral external appearance very close to that of clear double glazing

Has a good light and energy performance

Stopray Elite is also available on Clearvision, AGC Glass Europe's extra-clear glass

> [See Brands](#) > [Planibel clear](#) > [Clearvision](#)



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## Energy NT

Toughenable soft-coated low-E glass with enhanced solar protection

Assembled into double glazing (in #2), Energy NT is similar to Energy N in terms of neutrality, light transmission, reflection and performances. Its coating can withstand the toughening process, offering more safety.

Stopray Energy N and Stopray Energy NT are a perfect match.

Residential and commercial applications.

Stopray Elite is also available on Clearvision, AGC Flat Glass Europe's extra-clear glass

> See Brands > Planibel clear > Clearvision



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## Galaxy on Clearvision

High-selectivity glass with an excellent solar factor

Highly neutral external appearance combined with a low light reflection

Ideal in summer and winter, for all climates thanks to its high-performance energy properties



## Performances

### Galaxy on Clearvision

Structure	Light properties (EN 410)		Thermal properties (EN 673)			
	LT%	LR%	EA%	SFSF	SCSF	
6  - 12 Air - 6	41	17	43	23.0	0.26	1.6
6  - 12 Ar 90% - 6	41	17	43	22.0	0.25	1.3
6  - 15 Air - 6	41	17	43	22.0	0.25	1.4
6  - 15 Ar 90% - 4	41	17	43	22.0	0.25	1.1
6  - 15 Ar 90% - 6	41	17	43	22.0	0.25	1.1
6  - 16 Ar 90% - 4	41	17	43	22.0	0.25	1.1



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### Silver 43/25

Silver-grey glass

Prized for its superb solar control

Ideal for buildings located in hot regions and those with facades exposed to sunlight

Stopray Silver is also available on Clearvision, AGC Glass Europe's extra-clear glass

> See Brands > Planibel clear > Clearvision



### Performances

#### Silver 43/25

Structure	Light properties (EN 410)		Thermal properties (EN 673)			
	LT%	LR%	EA%	SFSF	SCSF	
6  - 12 Air - 6	43	47	27	27.0	0.31	1.5
6  - 12 Ar 90% - 6	43	47	27	27.0	0.31	1.2
6  - 15 Air - 6	43	47	27	27.0	0.31	1.3
6  - 15 Ar 90% - 4	43	47	27	27.0	0.31	1.0
6  - 15 Ar 90% - 6	43	47	27	27.0	0.31	1.0
6  - 16 Ar 90% - 4	43	47	27	27.0	0.31	1.0

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## Vision-50

Neutral aesthetics

Improved tint offering a better rendering of the colours

The best compromise LT/SF for almost all kinds of climates

Available on AGC's extra-clear glass as Stopray Clearvision-50

> See Brands > Planibel clear > Clearvision

Enjoy the performances of combining AGC's soft and hard coatings...a whole range of 0.9 U-g value products! By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m<sup>2</sup>.K)!



## Performances

### Vision-50

Structure	Light properties (EN 410)		Thermal properties (EN 673)			
	LT%	LR%	EA%	SFSF	SCSF	
6  - 12 Air - 6	49	19	42	29.0	0.33	1.5
6  - 12 Ar 90% - 6	49	19	42	28.0	0.32	1.2
6  - 15 Air - 6	49	19	42	29.0	0.33	1.3
6  - 15 Ar 90% - 4	50	19	42	28.0	0.32	1.0
6  - 15 Ar 90% - 6	49	19	42	28.0	0.32	1.0
6  - 16 Ar 90% - 4	50	19	42	28.0	0.32	1.0

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### Vision-50T

The first toughenable Stopray on clear float

Very neutral aesthetics

Excellent performances with a solar factor of 31%

Ease of toughening

Stopray Vision-50T is also available on Clearvision, AGC Glass Europe's extra-clear glass

> See Brands > Planibel clear > Clearvision

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## Performances

### Vision-50T

Structure	Light properties (EN 410)		Thermal properties (EN 673)			
	LT%	LR%	EA%	SFSF	SCSF	
6  - 12 Air - 6	50	20	37	32.0	0.37	1.5
6  - 12 Ar 90% - 6	50	20	37	31.0	0.36	1.2
6  - 15 Air - 6	50	20	37	31.0	0.36	1.3
6  - 15 Ar 90% - 4	50	20	37	31.0	0.36	1.0
6  - 15 Ar 90% - 6	50	20	37	31.0	0.36	1.0
6  - 16 Ar 90% - 4	50	20	37	31.0	0.36	1.0

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### Vision-60T

Stopray Vision-60T combines solid thermal and solar performance.

Architects value it for its transparency and appearance.

It is an addition to AGC's range of toughenable, high-performance coated glasses.

Stopray Vision-60T is also available on Clearvision, AGC Glass Europe's extra-clear glass

> See Brands > Planibel clear > Clearvision

Enjoy the performances of combining AGC's soft and hard coatings....a whole range of 0.9 U-g value products! By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m<sup>2</sup>.K)!



## Performances

### Vision-60T

Structure	Light properties (EN 410)		Thermal properties (EN 673)			
	LT%	LR%	EA%	SFSF	SCSF	
6  - 12 Air - 6	59	14	39	38.0	0.44	1.5
6  - 12 Ar 90% - 6	59	14	39	37.0	0.43	1.2
6  - 15 Ar 90% - 4	60	14	38	37.0	0.43	1.0
6  - 15 Ar 90% - 6	59	14	39	37.0	0.43	1.0
6  - 16 Ar 90% - 4	60	14	38	37.0	0.43	1.0

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### Safir 61/32

Highly selective glass with a blue tint, a best-seller in the range

Prized for its extraordinary light transmission and energy performance

Stopray Safir is also available on Clearvision, AGC Glass Europe's extra-clear glass

> See Brands > Planibel clear > Clearvision



### Performances

#### Safir 61/32

Structure	Light properties (EN 410)		Thermal properties (EN 673)			
	LT%	LR%	EA%	SFSF	SCSF	
6  - 12 Air - 6	61	15	37	35.0	0.4	1.6
6  - 12 Ar 90% - 6	61	15	37	35.0	0.4	1.3
6  - 15 Air - 6	61	15	37	35.0	0.4	1.4
6  - 15 Ar 90% - 4	61	15	36	35.0	0.4	1.1
6  - 15 Ar 90% - 6	61	15	37	35.0	0.4	1.1
6  - 16 Ar 90% - 4	61	15	36	35.0	0.4	1.1

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## Elite 67/37

Very selective glass

Has a low light reflection, slightly green reflection and high level of light transmission

Ideal for temperate and cold climates

Stopray Elite is also available on Clearvision, AGC Flat Glass Europe's extra-clear glass

> See Brands > Planibel clear > Clearvision



## Performances

### Elite 67/37

Structure	Light properties (EN 410)		Thermal properties (EN 673)			
	LT%	LR%	EA%	SFSF	SCSF	
6  - 12 Air - 6	67	14	34	40.0	0.46	1.6
6  - 12 Ar 90% - 6	67	14	34	40.0	0.46	1.3
6  - 15 Air - 6	67	14	34	40.0	0.46	1.4
6  - 15 Ar 90% - 4	67	14	33	40.0	0.46	1.1
6  - 15 Ar 90% - 6	67	14	34	40.0	0.46	1.1
6  - 16 Ar 90% - 4	67	14	33	40.0	0.46	1.1

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## Vision-36T

As an extension of the coating characteristics and applications development, Stopray Vision 36T is a temperable glass with one of the lowest solar factor (S.F.=22%) and shading coefficients (S.C.=0,25) in the market. Stopray Vision 36T is therefore the best solution for hot climates to maximize energy savings and for roof applications in all weathers.

Key benefits:

- Extremely low S.F. (22%)
- Controlled LT (36%)
- 1.0 Ug-value and increased comfort and energy savings
- Stopray Vision 36T is temperable
- Provides neutral bluish aesthetics and a soft reflection

Enjoy the performances of combining AGC's soft and hard coatings....a whole range of 0.9 U-g value products! By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m<sup>2</sup>.K)!



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## Ultravision-50

The new Stopray Ultravision 50 is an high performance soft-coated glazing with an innovative triple Silver coating, applied in a vacuum, allowing you to maximize the light transmission (LT=49%) while significantly reducing the solar heating (SF=23%). Therefore Stopray Ultravision 50 provides you with the best selectivity (i.e. light transmission to solar factor ratio > 2!) for enhanced interior comfort. Stopray Ultravision 50 will allow you to benefit from more interior light and less cooling expenses.

### Key benefits

- High light transmission (L.T. = 49%): more natural light in the building
- Low solar factor (23% - meaning that 77% of the solar heat is kept outside)
- High thermal insulation (1.0 W/(m<sup>2</sup>.K)) è more comfort and increased energy savings
- Pleasing and neutral aesthetics as it is always produced on Clearvision, AGC's extra-clear glass
- Best investment as it significantly reduces your cooling and lighting expenses.

Stopray Ultravision 50 will be commercially available from March 2011.





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The data are calculated using spectral measurements that are conform to standards EN 410 (1998), ISO 9050 (1990) and WIS/WINDAT.

The Ug-value (formerly k-value) is calculated according to standard EN 673. The emissivity measurement complies with standards EN 673 (Annex A) and EN 12898.

This document is no evaluation of the risk of glass breakage due to thermal stress. For tempered glass: the risk of spontaneous breakage due to Nickel-Sulfide is not covered by AGC Glass Europe. The Heat Soak Test is available on request.

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BRADLEY GLASS  
17, Willowbrook Road  
Worthing  
Great Britain  
+44 1903 206106  
+44 1903 214395  
enquiries@bradleyglass.co.uk

AGC Glass UK Ltd - Flat Glass Division  
6 Allerton Road  
Rugby  
Great Britain  
+44 1788 53 53 53  
+44 1788 56 08 53  
sales.uk@eu.agc.com  
www.agc-glass.eu

AGC Flat Glass UK Ltd.  
6 Allerton Road  
Rugby  
Great Britain  
+44 1788 53 53 53  
+44 1788 56 08 53  
sales.uk@eu.agc.com  
www.agc-glass.eu