



MAGNETRON COATINGS



GLASS UNLIMITED

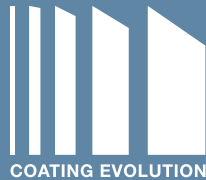
TOUGHENABLE



COATING EVOLUTION

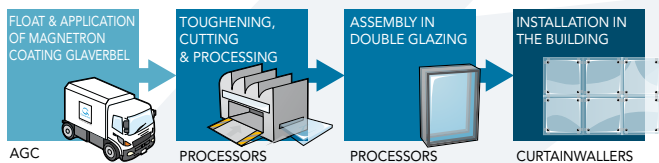
COATING EVOLUTION

Anticipating developments in the glass sector, AGC Flat Glass Europe* is the only company in the world to offer a large range of products that can be toughened by processors.



Since these high-performance glasses can be toughened on site, all processing operations can be decentralised. As a result, the logistics chain is more flexible and can better react to the unforeseen circumstances that typically arise in any project. AGC supplies products that can be stored by processors and enable them to provide their clients with a better service: rapid turnaround and the ability to deliver small quantities and replacements. All this results in more time, more money and better efficiency at all levels.

Optimised model – all partners play their part efficiently



- ϵ products can be managed in stock
- High performance product that can be toughened locally
- Short delivery times even for replacement units
- Possibility to deliver in small quantities

AGC's magnetron-coated products yield excellent thermal and solar performance. Recent technical developments also make magnetron coatings extremely resistant and means that they are able to undergo toughening, curving and screen printing processes.

With its ϵ product range, AGC is meeting the expectations of its processor clients, complying with the demands set by environmental regulations and responding to current architectural challenges.

* In this document, AGC stands for AGC Flat Glass Europe.

THE RANGE OF TOUGHENABLE



PLANIBEL TOP^{N+} ϵ

PLANIBEL Energy^N ϵ

Toughenable low-emissivity glass

Toughenable magnetron-coated glass, PLANIBEL TOP^{N+} ϵ strikes an optimal balance between thermal insulation and light transmission. Given its very neutral appearance, it makes a perfect partner for its non-toughenable counterpart (TOP^{N+}) within the same façade. The two products have similar thermal and light properties. The version that can be toughened by the processor offers all the industrial advantages of the products in the ϵ range. PLANIBEL TOP^{N+} ϵ offers all the benefits of a leader in its field: rapid turnaround, large selection of thicknesses and a solid reputation. PLANIBEL TOP^{N+} ϵ is available on Clearvision. This offers a better neutrality and increases free solar heat gain.

Intelligent glasses for all seasons




PLANIBEL ENERGY^N ϵ is the first glass in the Low-E range to combine thermal insulation and enhanced solar control. It is a 'smart' glass that boosts comfort levels in summer and winter alike and is an excellent partner for its non-toughenable counterpart. AGC is the only glass manufacturer to offer processors toughenable versions of its low-emissivity glasses. This innovation saw PLANIBEL ENERGY^N ϵ awarded a silver medal in the Innovation Competition at Batimat 2005. In addition to having a thermal insulation rating of 1.1 (90% argon), it also has a solar factor of 45%.



TOUGHENABLE MAGNETRON COATINGS


STOPRAY on coloured glass

Colours for processors

Three colours are now available for processors looking for high-performance logistical solutions. However, these products, which have a high level of energy absorption, need to be toughened so that they can withstand thermal stresses. The toughenable STOPRAY coating, which is applied to the three substrates in green (Lime), grey (Titanium) and blue (Indigo), opens up a multitude of possibilities for processors. STOPRAY Lime 61 , Titanium 37  and Indigo 48  boast extremely high solar and thermal performances. This glass can be used in all sorts of climates. Its low light reflection gives it a contemporary appearance. The high-performance coating can be toughened, bent and screen-printed.



STOPRAY Vision-50

Neutral look & excellent performance

The first toughenable STOPRAY on clear float glass offers a whole host of benefits. STOPRAY Vision-50  provides high-level thermal and solar performance, giving processors the opportunity to store, toughen, curve and screen print it (under certain conditions). Like the rest of the prestigious STOPRAY range, this product offers a highly neutral appearance and maximum selectivity, with a solar factor of almost 30%. This glass can be used in all climates and its low light reflection gives it a contemporary appearance.

STOPRAY Vision-60








Neutrality & Transparency

STOPRAY Vision-60  - a newcomer to the prestigious STOPRAY range - is bound to please. Its major selling point is high performance, combining superb light transmission with excellent thermal and solar ratings. This product achieves a modern look and superb transparency thanks to its low level of light reflection. Architects value it for its neutral appearance. STOPRAY Vision-60  is an addition to the range of toughenable, high-performance coated glasses. This glass can also be bent and screen-printed (under certain conditions), making it the perfect choice for processors.








NEW !

The new protective patented AGC coat guarantees better scratch resistance during transport and processing.

COMPARATIVE TABLE OF PERFORMANCES FOR PRODUCTS








	PLANIBEL TOP ^{N+} 	PLANIBEL ENERGY ^N 	STOPRAY Lime 61 	STOPRAY Titanium 37 	STOPRAY Indigo 48 	STOPRAY Vision-50 	STOPRAY Vision-60 
Body tint	clear	clear	green	grey	dark blue	clear	clear
Light transmission	•••	•••	••	•	••	••	••
Thermal insulation	•••	•••	•••	•••	•••	•••	•••
Solar protection	•	••	•••	•••	•••	•••	•••
Low light reflection	•••	•••	•••	•••	•••	•••	•••
Selectivity	•	•••	•••	••	•••	•••	•••
Non toughenable product	TOP ^{N+}	ENERGY ^N	—	—	—	Vision-50	—

PROCESSING OPTIONS

	PLANIBEL TOP ^{N+} 	PLANIBEL ENERGY ^N 	STOPRAY Lime 61 	STOPRAY Titanium 37 	STOPRAY Indigo 48 	STOPRAY Vision-50 	STOPRAY Vision-60 
Laminated*	V	V	V	V	V	V	V
Double-glazing	V	V	V	V	V	V	V
Toughened	V	V	V	V	V	V	V
Bent	V	V	V	V	V	V	V
Screen-printed**	V	V	V	V	V	V	V
Can be stored	V	V	V	V	V	V	V








(*) after toughening | (**) some conditions do apply

OVERVIEW OF PERFORMANCES

	PLANIBEL TOP ^{N+} 	PLANIBEL ENERGY ^N 	STOPRAY Lime 61 	STOPRAY Titanium 37 	STOPRAY Indigo 48 	STOPRAY Vision-50 	STOPRAY Vision-60 
Assembly	4-15-4	6-16-4	6-16-4	6-16-4	6-16-4	6-16-4	6-16-4
coating position	#3	#2	#2	#2	#2	#2	#2
LT (%)	80	74	61	37	48	50	60
LR (%)	13	13	10	6	8	20	14
SF (%)	EN 410	64	44	32	26	29	31
U value (W/m ² .K)	90% argon (EN 673)	1.1	1.1	1.1	1.1	1.1	1.1

Abbreviations: LT: Light Transmission; LR: Light Reflection; SF: Solar Factor; U-value: Thermal transmittance. The # symbol indicates the position of the low-emissivity coating in the double glazing composition.

PRODUCTS AVAILABILITIES IN SINGLE-GLAZING

(mm)	4	6	8	10
Planibel Top ^{N+} 	V	V	V	V
Planibel Energy ^N 	V	V	V	V
Stopray Lime 61 		V	V	
Stopray Titanium 37 		V	V	
Stopray Indigo 48 		V	V	
Stopray Vision-50 		V	V	V
Stopray Vision-60 		V	V	V

Other thicknesses on request.

BLACKPEARL is the perfect solution for spandrel glazing units with all toughenable products as the outer sheet.

Consult our product website www.yourglass.com to download and print the entire "Processing Guide" for handling and processing instructions on all our toughenable magnetron products.



www.yourglass.com

GLASS UNLIMITED

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AGC Flat Glass Europe is part of the AGC group that has representatives worldwide. See www.yourglass.com for further addresses.