



## TRANSPARENT SHIELDING AGAINST ELECTROSMOG

WAVETRAP is a transparent product from WAVE by AGC to shield indoors against undesirable radio frequency signals and microwave radiation for various frequency ranges and application types.

### Key Benefits



#### PRESERVED AESTHETICS

WAVETRAP is invisible to building occupants.



#### PRESERVED GLAZING PERFORMANCE

WAVETRAP does not impact on the glass insulation or thermal performances. Other additional functionalities can be still added.



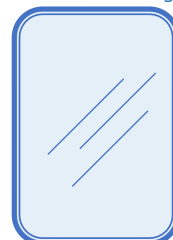
#### OPTIMIZED SHIELDING PERFORMANCE

WAVETRAP offers superior shielding performance in accordance with requested specifications.

For privacy, wellness, and Electromagnetic compatibility (EMC) reasons, there is an increasing demand to prevent the transmission of unwanted electromagnetic radiation to the indoor environments. Glazing apparently plays a role in blocking radio waves from penetrating indoors.

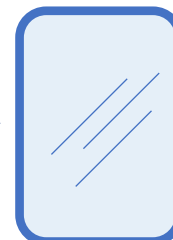
WAVETRAP combines decades of AGC's experience and expertise in the production and processing of flat glass and the antenna engineering to respond to the shielding needs for a wide frequency ranges and different requirements.<sup>1,2</sup>

Standard Glazing



Mediocre shielding

WAVETRAP



Excellent shielding

<sup>1</sup> Generic WAVETRAP solutions are available. Please contact us to request datasheets.

<sup>2</sup> WAVE by AGC offers custom WAVETRAP glazing tailored to your needs.

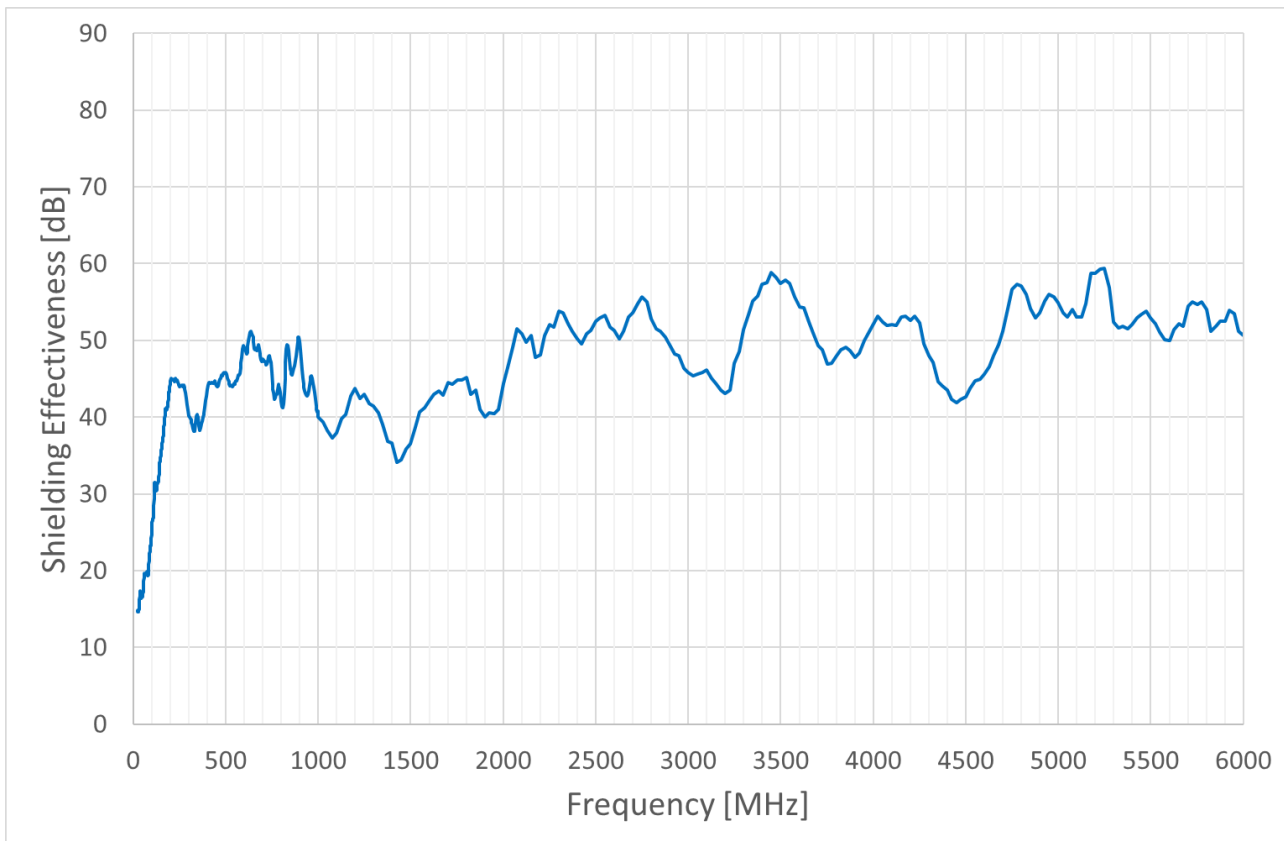
## Glass performance data simulation<sup>1</sup>

Light properties - EN 410				
Light transmittance	$\tau_v$	[%]	62	
External light reflection	$\rho_v$	[%]	12	
Internal light reflection	$\rho_{vi}$	[%]	14	
Color rendering index	Ra	[%]	95	
Energy properties - EN 410				
Total solar energy transmittance	g	[%]	30	
External energy reflection	$\rho_e$	[%]	35	
Internal energy reflection	$\rho_{ei}$	[%]	30	
Direct energy transmission	$\tau_e$	[%]	27	
Energy absorption glass 1	$\alpha_{e1}$	[%]	35	
Energy absorption glass 2	$\alpha_{e2}$	[%]	3	
Total energy absorption	$\alpha_e$	[%]	38	
Shading coefficient	SC		0.34	
UV transmission	$\tau_{uv}$	[%]	0	
Selectivity			2.07	
Thermal properties - EN 673				
Thermal transmittance (vertical glazing)	U value	[W/(m <sup>2</sup> .K)]	0.9	
Acoustic properties - EN 12758				
Direct airborne sound reduction <sup>2</sup>	R <sub>w</sub> (C;Ctr)	[dB]	51 (-2;-7)	
Safety properties				
Burglar resistance - EN 356			Class P4A	
Pendulum body impact resistance – EN 12600			Class 1B1	
Thickness and weight				
Nominal thickness		[mm]	47	
Weight		[kg/m <sup>2</sup> ]	63	

<sup>1</sup> The provided performance analysis is for the limited purpose of assisting the user in evaluating the performance of the glass configuration identified in this report. It does not replace an official Declaration of Performance and therefore may contain some variations, although AGC has made every effort to verify the reliability of this simulation tool. This document is for informative purposes only and in no way implies acceptance of any order by the AGC Group.

<sup>2</sup> The sound reduction indexes correspond to glazing with dimensions 1230 mm by 1480 mm according to EN ISO 10140-3 and are tested in laboratory conditions. In-situ performances may vary according to the effective glazing dimensions, supporting system, installation, environment, noise sources etc. The accuracy of the given indexes is +/- 1 dB.

## Shielding Effectiveness<sup>1,2</sup>



<sup>1</sup> All specifications correspond to the WAVETRAP glazing correctly connected to the frame in accordance with the instructions.

<sup>2</sup> Measurements were performed in accordance with MIL STD 285 or IEEE299 at FMEC lab of KU Leuven (external EMC laboratory).