TIREXtreme GLASS

for near-infrared technologies

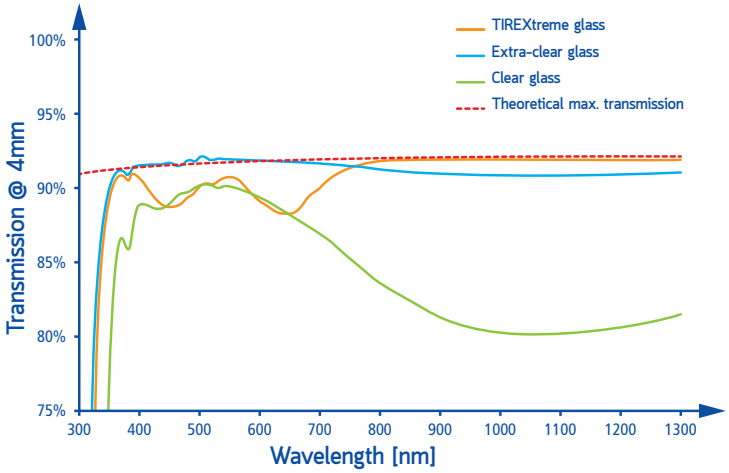
AGC's TIREXtreme glass is a clear float glass with very high transmission in the near-infrared range, optimised for wave-guiding applications. This makes it the material of choice for any application dealing with near infrared and the perfect solution to implement infrared in-glass touch technologies in large displays.

TIREXtreme glass

What's so special about it?	What does this mean for you?
Unique near-infrared transmission	– Thanks to its special composition, TIREXtreme has near-infrared transmission 30 times higher than clear float glass and 5 times higher than extra-clear glass, making it possible to use as a waveguide: significant transmission up to four meters
Crystal clear appearance	– TIREXtreme features very high light transmission and a low level of coloration, ensuring optimal visual rendering of the display
Highly resistant	– TIREXtreme glass has superior resistance to scratches and excellent durability. It can be thermally or chemically toughened to meet the highest standards of mechanical resistance
Enabling state-of-the-art in-glass near-infrared technology	– Technology using invisible infrared light inside the glass to detect touch points
	– The only glass solution allowing "in-glass" touch in large dimensions, up to 100 inches

What can you use it for	. . . be inspired
Interactive screens	– TIREXtreme allows "in-glass" touch in large dimensions
New solar technologies	– TIREXtreme is a key enabler for transparent luminescent solar concentrators allowing scaling up of promising green technology through waveguiding
Infrared detection and communication	– TIREXtreme is perfectly suited for cover glass for infrared emitting/receiving devices ensuring optimal protection for Lidar systems, remote control, etc.

Near-infrared transmission comparison



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Your Dreams, Our Challenge

Performance

Thickness	1.6 mm	3.2 mm	4 mm
TL (EN410 – D65, 2°)	91%	90%	90%
TE (ISO 9050)	91%	90%	90%
Near-IR absorption coefficient (850 nm)	0.5 m^{-1}		
Young's Modulus	70 GPa		
Density	2500 kg/m^3		

Availability

TIREXtreme is readily available in the maximum size of 3.21 x 6 m and in thicknesses of 1.6 mm, 3.2 mm and 4 mm.

TIREXtreme can be manufactured in any thickness from 0.5 mm to 5 mm on request.

Processing options

Safety	Toughening (thermal and chemical)
	Safe foil application
Cutting	Straight, circular or free shape
Shaping and edge finishing	Edge grinding, drilling, laser finish
	Bending (thermo-forming and cold-bending)
Special treatments	Silkscreen printing
	Acid etching
	Anti-reflective coating
	Wet coating application (anti-fingerprint/hydrophobic coating)
	UV gluing

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AGC GLASS EUROPE, A LEADER IN FLAT GLASS

Based in Louvain-la-Neuve (Belgium), AGC Glass Europe produces, processes and markets flat glass for the construction industry (external glazing and interior decoration), car manufacture and solar power applications. It is the European branch of AGC, the world's leading producer of flat glass. It has over 100 sites throughout Europe, from Spain to Russia. AGC Glass Europe has representatives worldwide - See www.agc-yourglass.com for further addresses.

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