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artglass™





ARTGLASS. GLASS FOR ART.

Artglass is designed specifically for picture framing. It ensures that images are protected and displayed with an absolute minimum of reflections.

UNCHALLENGED IN QUALITY

The highest clarity and durability standards

ANTI-REFLECTIVE

Minimized reflections on glass and acrylic

UV-PROTECTIVE

Museum-grade protection with up to 99% shielding from UV light damage

Unlock your full potential with Artglass

Loyal customers who return often

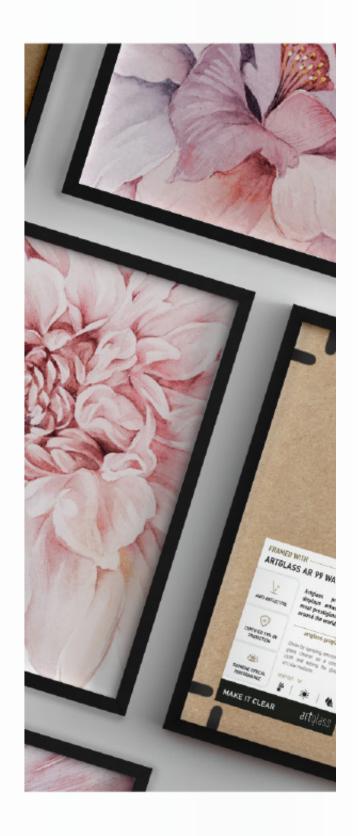
Showcase your expertise and product options and create lasting relationships with your customers.

Enhanced satisfaction

Improve customer satisfaction and provide value that doesn't fade with time.

Increased revenues

Increase your profits, attract new customers and strengthen your business with specialty glazing.



RTGLASS 03

The art of framing

with Artglass

For many visitors, your framing shop will be the first time that they are introduced to the benefits of specialty glazing.

Impress your customers with the many possibilities of custom framing and keep them coming back for more!

Show, don't tell

Optimise your sales strategy by putting Artglass's anti-reflective performance and exceptional quality in the spotlight.

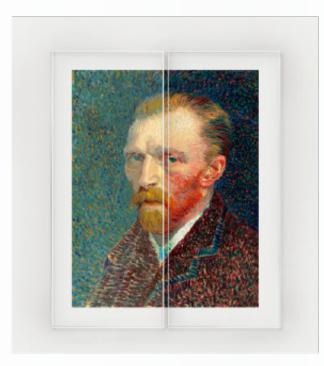
Display your Artglass sales tools materials prominently and couple the display with framed examples using Artglass anti-reflective glazing. Once your customers see the difference, they will always demand Artglass anti-reflective glazing for their framing.



Education is key

Your customers may be taking their first steps into the world of custom framing. Educate them about UV-associated artwork damage and the role that glass plays in the presentation and protection of artwork.

By educating your customers, you become their partners in making informed framing choices that best display and protect their precious artworks and memorabilia.



Personalized recommendations

Begin by asking the right questions. Learn about where the artwork comes from, its value, and the emotional connection your customer.

Your customers may include artists, collectors, designers, and other professionals who are searching for the best framing choices. In custom framing, everyone benefits from educated, personalized recommendations.



ARTGLASS 05

FEATURES



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Be clear about your choices!

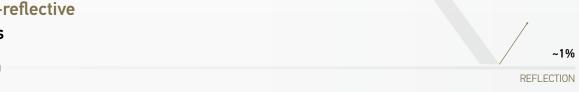
Regular glass REFLECTION

When light hits glass, some visible light is reflected. Regular glass and acrylic reflect ~8%, causing bright reflections in front of artwork and offering limited UV protection.



Anti-glare glass doesn't eliminate reflections, but diffuses them. The etched surface is especially distracting in deep frames and makes cleaning very challenging.

Anti-reflective glass



Artglass anti-reflective coatings remove almost all glass reflections, bringing out the true colours and details of framed artworks.

Artglass anti-reflective glazing is ultra-smooth, durable, and easy to clean. All Artglass products have an elevated UV protection level, thus, safeguarding artworks from being damaged by ultraviolet light.



Recommendations:

Anti-reflective glazing

Artglass anti-reflective glazing improves every frame, eliminating most visible reflections and enhancing the artwork on display.



Deepen dark colours

Darker hues appear richer and have greater impact with anti-reflective glazing

Emphasize the details

Highest-quality glass enhances every brushstroke and detail

Intensify depth

Anti-reflective glass enhances the impact of depth in frames

Showcase in every setting

Anti-reflective glass assures that your artwork stands out even in the brightest environments



RTGLASS 11

UV-protective glazing

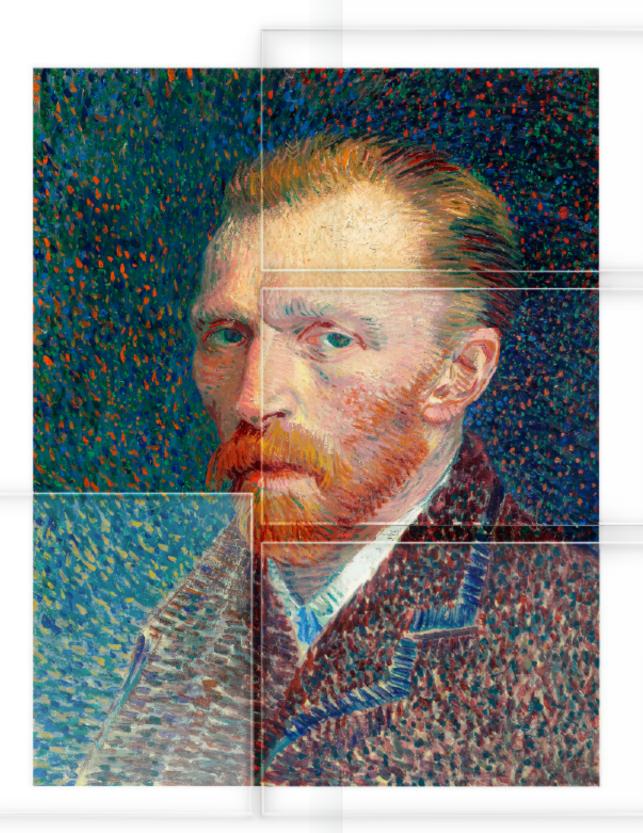
Ultraviolet light damage

Ultraviolet light, like all other light-waves, comes from the sun. It exists everywhere where there is sunlight and causes damage to materials, artworks and memorabilia

Regular glass 20-45% UV protection

UV damage accumulates over time and is expensive or impossible to properly repair.

The images show how printed images behind Artglass and regular glass faded after 1174 hours of exposure to 13 w/m² of simulated sunlight, representing one year of continuous direct sunlight.



Three levels of UV protection by Artglass

99% UV protection
Maximum protection

The highest UV protection for your art. Glazing products with 99% UV block qualify as conservation glass, approved of by professionals and conservators worldwide.

92% UV protection Elevated protection

The 92% UV block will significantly lengthen the lifespan of framed work. This is a suitable choice for exhibiting in controlled light environments.

70% UV protection Basic protection

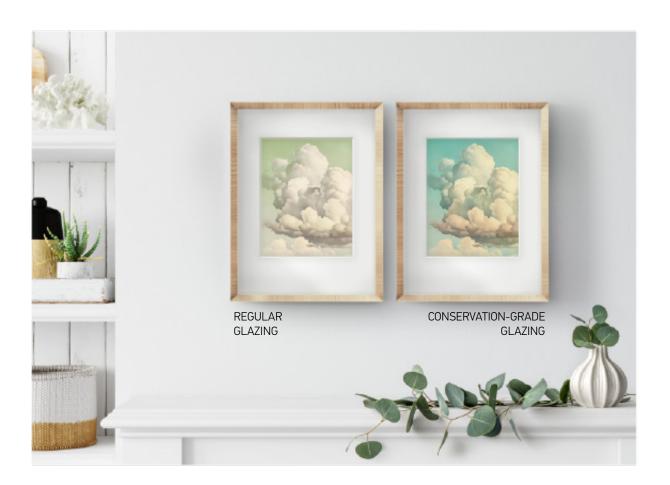
A significant upgrade from regular glass, ensuring up to 70% UV protection. Suitable for reproducible artworks and photographs.

Recommendations:

Conservation-grade glazing

UV protection is like an insurance policy for your framed art. It is especially important for framing unique or limited edition artworks and fragile art mediums.

Artglass state-of-the-art technology combines UV block and anti-reflective properties to create the highest-quality picture framing products.



Original artworks

Restoring UV light damage on unique artworks can be very time consuming and expensive

Limited edition issues

Limited edition artworks or those with unique signatures should have maximum protection from UV damage

Watercolour paintings

Many watercolour pigments, and paper, can suffer from UV light exposure, causing colours to fade and paper to yellow

Fabrics and textile art

Many fabrics and thread pigments can fade in light, so exposure to UV rays must be limited

Priceless memorabilia

Every sentimental item and personal memorabilia will be best kept safe behind UV-protective glazing



RTGLASS 15

Shatter-resistant glazing

Shatter resistance is essential for safeguarding valuable and large-scale artworks and ensures long-lasting protection against potential physical damage.

Artglass Lifetime Acrylic and Artglass AR 99 Protect laminated glass eliminate the risk of broken glass damage, while also ensuring the highest UV protection and visibility for your artworks. Our durable acrylic is also lighter than glass, making it not only the safest, but also the most convenient choice for shipping artworks.

Recommendations:



Large artworks or art pieces that must be transported require shatter-resistant glazing that offers physical protection for the artwork.

- Travelling artworks
- Framing for high-traffic areas
- Wall displays in seismic zones
- Precious exhibits



PRODUCTS



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Anti-reflective glass

Artglass

AR 70



Blocks 70% of UV light



Easy to use & handle

Artglass AR 70 is designed to reduce glare and reflections while also blocking a portion of harmful ultraviolet (UV) rays. It is an excellent choice to achieve superior visibility for framed artworks, while also providing a basic level of UV protection.

$\overline{\mathbb{N}}$	Substrate	Low iron
ÛV	UV protection	~70%
	Thickness, mm	2 3
2	Maximum size, mm	2250 x 3302 *
→	Light transmission	~98%
	Reflection colour	Neutral green

20



Artglass

AR 92



Blocks 92% of UV light



Easy to use & handle

Artglass AR 92 offers elevated UV protection. Like Artglass AR 70, it decreases reflections to less than 1% and provides exceptional image resolution. Artglass AR 92 has a unique ocean-blue reflection colour.





Anti-reflective glass

Artglass

AR 99 Water White



Blocks 99% of UV light



Ultimate colour precision



Protective masking film

Artglass AR 99 Water White offers unprecedented clarity of 99% UV-blocking glass. Its improved coatings and ultra-clear substrate make it the clearest museum-grade glass available on the market.



NEW FEATURE

The protective film identifies the UV-coated side and protects it from scratches.



Incredible performance on white

Artglass AR 99 Water White eliminates the green and brown undertones of conventional UV-blocking glass due to its reduced iron glass substrate.

ARTGLASS AR 99 WATER WHITE

OTHER
UV-PROTECTIVE GLASS

	Substrate	Low iron	
ÛV	UV protection	~99%	
<u></u>	Thickness, mm	2	
2	Maximum size, mm	1219 x 1727	
→	Light transmission	~98%	
	Reflection colour	Neutral green	

^{*} Max. size in inches: 48" x 68"





Anti-reflective acrylic



Blocks 99% of UV light



Shatter resistant

Artglass Lifetime Acrylic

Artglass Lifetime Acrylic minimizes reflections and provides maximum UV protection for your art. The anti-static acrylic product has masking film on both sides to make handling and storage as convenient as possible.

Exceptionally easy to clean because it has an ultra-smooth protective top-coating.

\bigotimes	ÜV
Lightweight	<u></u>
& durable	

No.	Substrate	Premium hard	-coated acrylic
ÛV	UV protection		~99%
	Thickness, mm		3 4.5 6
2	Maximum size,	mm	1970 x 2580
→→	Light transmiss	ion	~98%
8	Reflection colou	ır	Neutral green

^{*} Max. size in inches: 77.5" x 101.5"





Anti-reflective glass

Artglass

AR 99 Protect



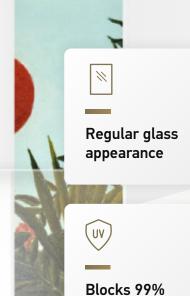
Blocks 99% of UV light



Shatter resistant

Artglass AR 99 Protect is made from two sheets of anti-reflective glass that are bonded with a PVB film. The laminating film provides maximum UV protection and ensures that glass shards don't damage the artwork.

\(\)	Substrate	Laminated low iron
ÛV	UV protection	~99%
<u></u> →	Thickness, mm	4.4 6.4
~	Maximum size, mm	2250 x 3210 *
→	Light transmission	~98%
8	Reflection colour	Neutral green



of UV light

Artglass

UV 99

While this conservation-grade product looks like regular glass, its 99% UV block means that UV light damage is nearly impossible.

	Substrate Premi	um float substrate
ÛV	UV protection	~99%
	Thickness, mm	2
Z	Maximum size, mm	2250 x 3302 *
→	Light transmission	~89%
	Reflection colour	None

Artglass product

comparison		<u>\</u>	→ <u>· · · · · · · · · · · · · · · · · · ·</u>	ŪV	<u>↓</u>		8
	Substrate	Light reflection	Light transmission	UV protection	Thickness	Shatter-resistance	Reflection colour
Artglass AR 70	Low iron	~1%	~98%	~70%	2 3 mm	No	Neutral green
Artglass AR 92	Low iron	~1%	~98%	~92%	2 3 mm	No	Neutral blue
Artglass AR 99 Water White	Low iron	~1%	~98%	~99%	2 mm	No	Neutral green
Artglass Lifetime Acrylic	Premium hard-coated acrylic	~1%	~98%	~99%	3 4.5 6 mm	Yes	Neutral green
Artglass AR 99 Protect	Laminated low iron	~1%	~98%	~99%	4.4 6.4 mm	Yes	Neutral green
Artglass UV 99	Float	~8%	~89%	~99%	2 mm	No	None

Understanding the properties

of Artglass glazing

When it comes to glass, every detail is important. Learn about the properties of Artglass and why these characteristics matter when selecting glazing for an artwork.

Substrate

Artglass products are manufactured from the best substrates for every product application. Learn more about the substrates used for Artglass product manufacturing.

Premium acrylic substrate



- Highest clarity plexiglass substrate
- Framing-grade requirements for maximum UV protection
- Anti-static and protected with additional hard coating

Low iron glass substrate



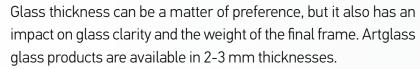
- Also referred to as 'water white glass'
- Purest colour resolution due to the low iron content
- Used where clarity and precision are paramount

Float glass substrate



- Also referred to as 'clear glass'
- A slight green colour tint because of the iron content
- Suitable for glass products where clarity is secondary

Thickness



Acrylic material tends to be affected by some environmental changes and these can cause slight bending of the glazing. We recommend $4.5 \, \text{mm}$ acrylic for frames bigger than $2 \, \text{x}$ 1 m, and 6 mm acrylic for $2 \, \text{x}$ 2 m and larger.

Maximum size

Artglass coating technology allows application of high-precision AR coatings on large sheets of glass and acrylic. Our service includes a wide range of convenient and safely packaged cut-sizes for our framing customers.

Light transmission

Light transmission refers to the percentage of the visible light that gets through to the artwork. The higher the light transmission, the better the artwork visibility and colour precision.

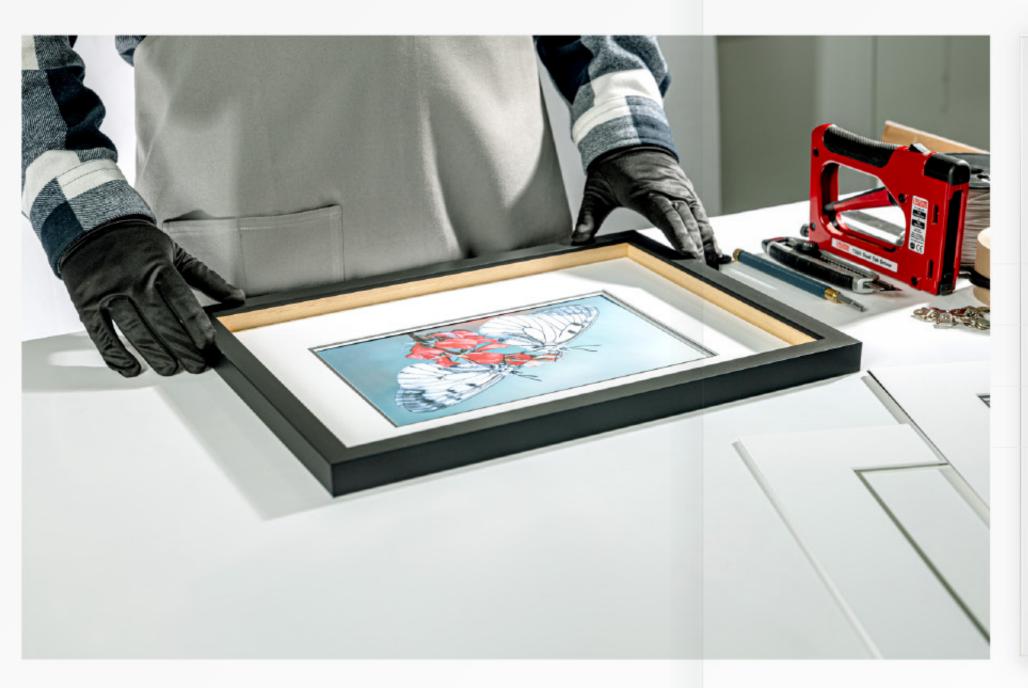
Reflection colour

Artglass products are optimized for the best viewing experience, however, science doesn't allow glass to be completely invisible. When looking at anti-reflective glass with a bright light source behind you, you will notice a slight reflection. This remaining reflected light has a neutral colour tint – something characteristic to all anti-reflective coatings. The remaining reflection colour from Artglass is stable and uniform independent of the angle of viewing.



CLEANING AND HANDLING

ARTGLASS



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Cut anti-reflective glass yourself!

Once you master cutting your own glass, you'll be able to generate more profit from your glazing products.



Always use personal protective equipment when handling glass.

Carefully prepare your workspace and only use clean work surfaces.

First steps in cutting your own glazing:

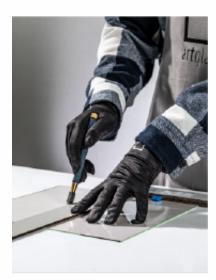
- 1. Request samples to practice the cutting technique
- 2. Use Artglass guidelines and handling videos
- 3. Gain extra value from off-cuts

Watch videos and learn more at artglass.groglass.com/framer-resources

Cutting and handling

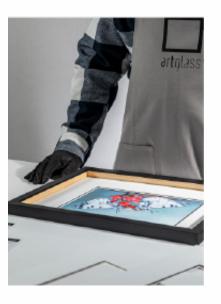
Artglass AR 70 & Artglass AR 92

Cutting Artglass is as simple as it gets. Artglass anti-reflective products can be cut with the same tools and methods used for cutting regular glass.



Cutting:

Artglass AR 70 and Artglass AR 92 can be cut from either side using the "score and break" method. First, use a tungsten carbide wheel to etch a narrow-gauge line in the glass. Place the sheet over the edge of the worktable and clamp it if necessary. Carefully break the glass by bending the sheet downwards in a quick and even motion along the scored line.



Framing:

Artglass AR 70 and Artglass AR 92 can be framed with either side facing the artwork. That's because the anti-reflective coatings are applied on both sides of the product, with both sides equally durable.

Download Artglass handling guidelines

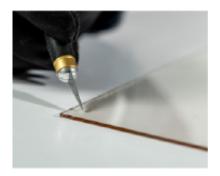




Cutting and handling

Artglass UV-protective glass

Artglass UV-protective glass products have a special coating on one side that blocks 99% of the incoming UV light. Special care should be taken to ensure that the UV-protective coating remains undamaged during the handling and framing process.



Artglass UV 99

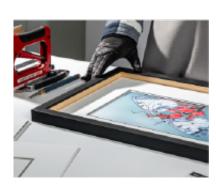
Identify UV-coated side:

The UV-coated side is identified with a label on the glass edge. If the label has been cleaned or cut off, perform a scratch test on the edge of the glass – the UV-protective coated side will scratch easier than the uncoated side.



Cutting:

Score the glass from the side that doesn't have the UV-blocking coating. Carefully break the glass.



Framing:

Always frame with the UV-coated side facing the artwork. This will protect the coating from scratches and ensure that the UV block performs as intended.









Artglass AR 99 Water White

Identify UV-coated side:

Cutting:



Using a manual or vertical glass cutter, lightly cut the masking film. Flip the product to the other side and score glass along the same line. Carefully break the glass.

Framing:



Remove the masking film just before finishing the framing. If necessary, wipe the glass with an anti-static brush or cloth before and after the removal of the masking film. Always frame with the UV-coated side facing the artwork.



Framers in the market have developed an alternative cutting method where the glass side is scored and broken first, followed by using a razor blade tool to cut the protective masking film on the other side.







Cutting and handling

Artglass Lifetime Acrylic

Artglass Lifetime Acrylic is covered with protective film on both sides to protect the glazing. To ensure easier handling, we recommend leaving the masking foil on the sheet for as long as possible.

Artglass Lifetime Acrylic can be cut from either side using multi-material cutters and power saw blades that are suitable for handling acrylic. We recommend using power saws for cutting to process 4.5 and 6 mm thicknesses.







Watch the handling

Manual cutting:

Use a multi-material scoring knife and score several times to create a narrow, sharp groove in the acrylic sheet.

Place the sheet over the edge of the worktable with the groove-side up and clamp the sheet if necessary.

Bend the sheet downwards in a quick and even motion to achieve a smooth edge. Cut the remaining protective film along the snapped line.

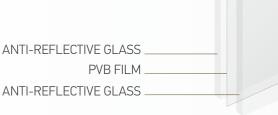
Framing:

Gently peel off the protective film. Remove the film-accumulated static with an anti-static brush, gun or cloth (only needs to be done once). Frame with either side facing the artwork.

Cutting and handling

Artglass AR 99 Protect

Artglass AR 99 Protect consists of two glass sheets with lamination PVB film in the middle. Because of the laminated film, both sides of the glass need to be scored before the glass can be broken.



Cutting:

To score Artglass AR 99 Protect, measure and score one side of the glass. Carefully, flip the glass to the other side.

Score the other side of the glass along the same measurement. If needed, clamp the glass to the table, and carefully break the glass at your scored line.

After both glass sheets have been broken, carefully cut the lamination PVB foil with a sharp narrow blade.

Framing:

Frame with either side facing the artwork.







ARTGLASS

GROWING WITH ARTGLASS



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Earn more with the

same amount of work!

In the business of custom framing, customer satisfaction and loyalty are paramount. Let's dive into a pricing strategy, inspired by successful framers worldwide, that can solidify your reputation as the go-to custom framer for value and quality.

The challenge:

Anti-reflective glass is too expensive for my customers

The materials you use are essential to the longevity and appearance of the final piece. However, with a fixed multiplier, specialty glass often comes with what seems a heavy price tag for the end customer. This can make it challenging to offer affordable framing options to more customers.

The strategy:

Making quality glass more affordable and popular

Consider this approach: by slightly reducing your profit margins on value-added framing products, you can make them more accessible to your customers and increase your overall profits.

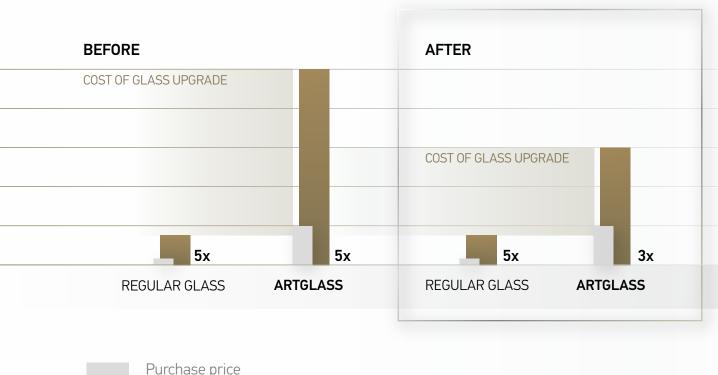
Here's how it works:

1. Decrease the jump in price to AR glass

Decreasing your margins can encourage more customers to invest in value-added framing materials. They are much more likely to make the jump, if the markup seems more reasonable to them. This can lead to increased sales volume for specialty glass, compensating for their reduced margins.

2. Increase profits without increasing labour

By reducing your Artglass margin to a 2x - 3x multiplier on the cost (compared to 5 - 7x on regular glass), you can still have significant profit, but greatly reduce the upgrade price for your end customers.



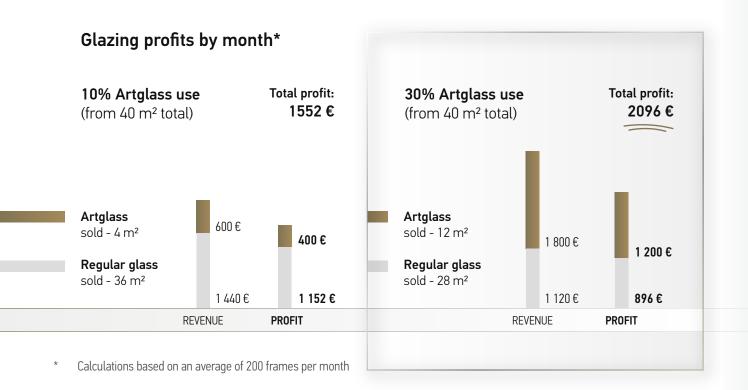


Unlocking success

with balanced pricing

Adopting lower margins does not mean sacrificing your bottom line, instead, it's about creating a win-win situation for your customers and your business.

	REGULAR GLASS	ARTGLASS
Price per m²	8€	50 €
Price of glass per 0.2 m ² framejob (40 x 50 cm 16" x 20" in)	1.6€	10€
Price multiplier	x5	х3
End-customer price for glazing	8€	30 €
Profit from glazing	6.4€	20 €

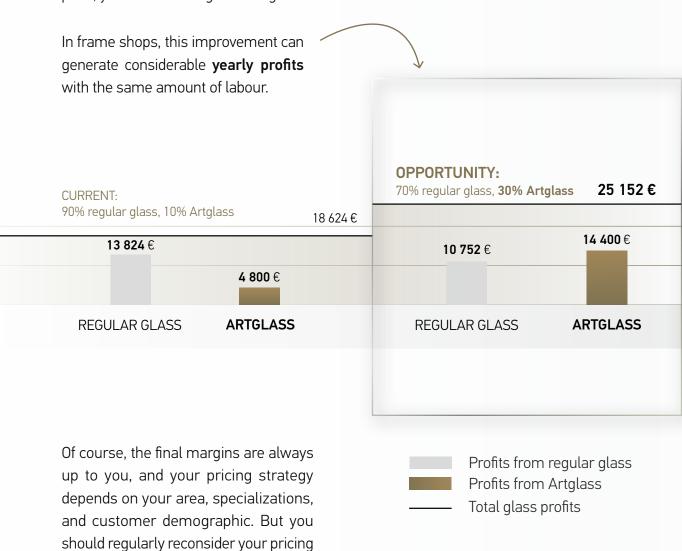


Benefits of increasing volume of Artglass used

to make sure that your business is

consistent, balanced and profitable.

With effectively placed POS materials, you can make Artglass sell itself, and with improved price, your sales of Artglass will grow.



How many glazing options should you have?

Something as simple as your product choice can increase your revenues, if their benefits are clearly presented. See the example below to see how wider choice can affect the buying decisions of your customers.





How are customers split between two choices?



When presented with 2 choices, the customers are likely to be split along the middle between choosing the basic or the added-value option.



How are customers split between three choices?



Presenting your customers with at least three choices tends to lead to most customers choosing the middle option, because of the larger context presented by the offer.



A wider product offer creates a range of choice, shifting people away from the cheapest option and toward more premium choices.



Artglass sales & marketing materials

We have high-impact sales tools that help you demonstrate the quality and benefits of Artglass.

Reach out to your Artglass distributor or contact us to find out how to get your Artglass marketing materials.



Artglass comparative shadowboxes

Attract attention to Artglass anti-reflective products with retail shadowboxes and displays.

Artglass product specifiers

Use the specifier to demonstrate the impact of anti-reflective glass on your customer's artwork.

Artglass informational materials

Additional information on Artglass specialty products, benefits, and applications.



Register your business on the Artglass Framer map:

Strengthen your business - help customers find you and grow your customer base

artglass.groglass.com/framers-map

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Artglass technology

Compared to traditional coating technology, Groglass vertical magnetron sputtering ensures the highest-quality products with the fewest defects possible.



Traditional coating technology

High possibility of defects because of the two-step production process

With both sides coated in the same manufacturing step, Artglass products are available in large sizes, consistent quality and superb durability.



Groglass coating technology

No direct contact with the glass, ensuring premium quality



Quality control

Lab tests

After each round of manipulation, the glass samples are tested in our laboratories, according to our quality guidelines for the product's optical performance.

Close tests

Every 10th sheet is tested in close detail and the findings go into our elaborate digital journal.

Manual inspection

Every cut-size glass sample is manually checked by our quality controllers, ensuring that the glass sheets are consistent in quality and free of any visual impurities.

ISO 45001

ISO 9001

ISO 50001

ISO 14001

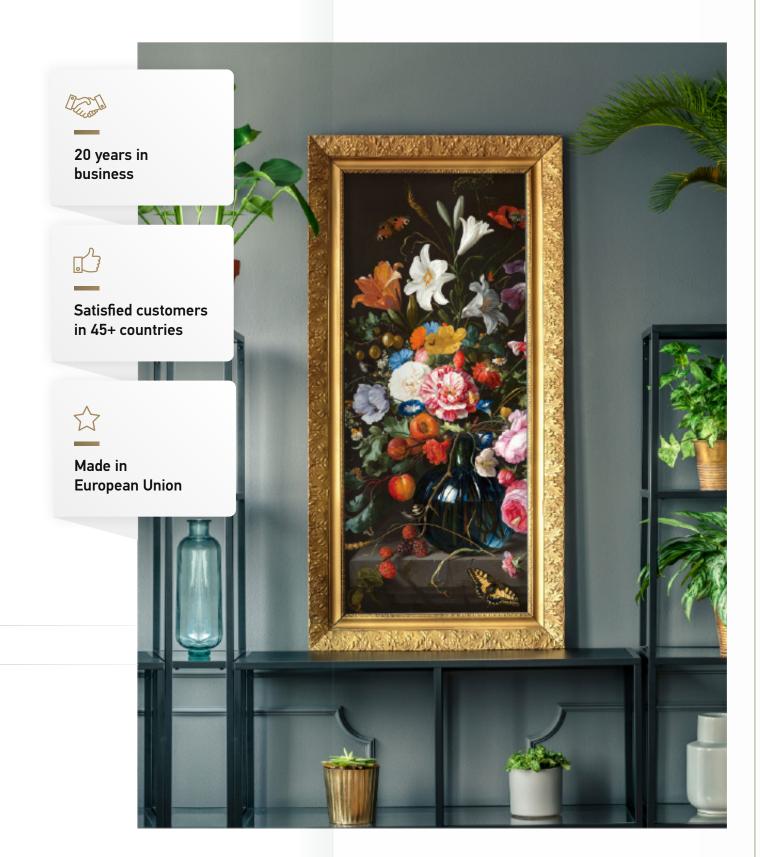
Certifications

Groglass is ISO certified for production of high-performance optical coatings on organic and mineral glass.

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About Artglass by Groglass

Artglass is produced by Groglass, a world leading developer and manufacturer of anti-reflective and other high-performance coatings on glass and acrylic for various industries: high-end electronic and static displays, museum showcases, lighting, architecture and other.



CONTACT US

artglass.groglass.com

2004

Groglass is established

♦≫ 2008

First Artglass products are delivered to the picture framing industry

2018

Opening of the UV-protective coating facility

♦≫ 2021

Innovation in museum-grade glass with the launch of Artglass AR 99 Water White

» 2024

Celebrating 20 years of Groglass

groglass

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