

RUSSIAN MANUFACTURER SINCE 2017

Glazing for cars and architecture

Professional solutions for car dealerships,
tuning centres, workshops and corporate clients.

Switchable tinting

Impact-resistant glass

Architectural glass

Octoglass: glass technology for vehicles and buildings

PRODUCTS

Switchable tinting for cars	Switchable tinting for architecture	Octoguard®: impact-resistant glass	Laminated glass (triplex)	Chemically strengthened glass
Energy-saving glass	Tinted and coloured glass	Decorative and laminated glass	Enamelled glass	Solar-control glass
Electrochromic bullet-resistant glass ¹	Anti-Sniper	Wearable electronics	Electrochromic filters	Filters for transparent displays

SERVICES

Automotive glazing retrofit	Cutting and machining	Bevelling	Colouring	Glass bending	Lamination
3D scanning	Glass-bending moulds	R&D / Research / MSP	Chemical feedstock synthesis and purification	Licensing of electrochromic glass production	Equipment

¹ In partnership with an armoured glass manufacturer.

Why customers trust us

2017

In business since
2017

From 15 days

Production lead time

Vehicle-specific

Original glass
geometry

R&D

In-house
development and
patents

Skolkovo resident

Member of Russia's technology
innovation centre.

Technical support

Advice on solution selection,
installation and use.

Core glazing solutions

Switchable tinting for cars

Tint car windows
at the touch of
a button.

Privacy, sun protection
and cabin comfort.

Electrochromic glass for architecture

Controlled privacy
and comfortable lighting
indoors.

Offices, meeting rooms
and private interiors.

Protective auto glass

Vandal-resistant solutions
based on laminated glass.

Fragment retention,
impact resistance and
sound insulation.

**We select the technology, glass composition and application
for each task.**

FLAGSHIP PRODUCT

Switchable tinting for cars

Electrochromic tinting for car windows,
without applied films or
mechanical blinds.

**Privacy on
demand**

Control tinting
at the touch
of a button.

Benefits for car owners

Control

Press a button.
Transparency
changes within
minutes.

Privacy

Personal space
in the cabin
on demand.

Sun protection

Tinting while
maintaining
visibility.

Cabin comfort

Less solar heat
through the
windows.

Light transmission >70%

In the clear state. Complies with
TR CU 018/2011.

Durability

In-house technology and
production control.

Octoglass electrochromic glass

The result of in-house research and practical manufacturing experience.

Patented technology

Octoglass developments are protected by patents.

Russian production

Technology developed and manufactured in Russia.

Durability

In-house technology and quality control during production.

We develop electrochromic technology and adapt it to customer requirements.

A finished product for partners

Car dealerships

An extra option for premium vehicles and customised orders.

Tuning centres and workshops

An advanced product with clear customer benefits and manufacturer support.

Corporate clients

Comfort and privacy for executives' vehicles and VIP passengers.

Made to match the original glass geometry. Production from 15 days.

Electrochromic glass applications

Commercial spaces

Office partitions
Meeting rooms
Shopfronts and showrooms

Hotels and hospitality

Hotel spaces
SPA and wellness

Private interiors

Space zoning
Panoramic glazing

Controlled tinting for privacy and comfortable lighting.

PROTECTIVE GLAZING

Octoguard®: vandal-resistant auto glass

Impact-resistant glazing that retains fragments and delays rapid access to the cabin.

3 protection levels

From basic laminated glass to reinforced glass with chemical strengthening.

Impact-resistant glazing solutions

Solution	Protective properties	Applications
Octoguard® Basic Basic laminated glass	Fragment retention in accidents. Improved sound insulation.	Everyday use. Mass-market vehicles.
Octoguard® Simple Reinforced interlayer	Greater impact resistance. Shape retention after damage.	Business-class vehicles, company fleets, premium taxis.
Octoguard® Ultra Chemical strengthening	Enhanced impact protection. Fragments stay bonded and the opening remains covered.	Executive vehicles, premium cars, security organisations.

Octoguard® Basic

Two glass layers with a special polymer interlayer.

Protective properties

- Protection from fragments in accidents.
- Fragment retention upon breakage.
- Compliance with safety standards.
- Improved sound insulation.

Applications

- Replacement of original glass where higher safety standards are required.
- Mass-market vehicles.

Octoguard® Simple

Laminated glass with a reinforced polymer interlayer.

Protective properties

Resistance to impacts from stones and hard objects.

Shape retention after damage and increased residual rigidity.

Resistance to delamination and haze.

Improved sound insulation.

Applications

Business-class vehicles and company fleets.

Premium taxis.

Use in areas with an increased risk of vandalism.

Octoguard® Ultra

Reinforced laminated glass with both glass layers chemically strengthened.

Protective properties

Resistance to impacts from hammers, bats and metal objects.

Fragments stay bonded and the glass covers the opening after damage.

High residual rigidity and sound insulation.

Resistance to moisture, delamination and yellowing.

Intended users

VIP cars and executive vehicles.

Premium and executive-class vehicles.

Security organisations.

Long service life with protective properties maintained.

Technical advantages of protective glazing

Close to original thickness

Installation without altering vehicle mechanisms.

Transparency

Clear visibility and compliance with GOST requirements.

Low weight

No excessive load on the vehicle structure.

Precise geometry

Manufactured to match the original glass shape.

Protective glazing tailored to the vehicle's design.

Energy-saving glass

Control of heat flow and solar gain in architectural projects.

Benefits for the building

Retains heat indoors in winter and reduces heating costs.

Limits solar heat gain in summer and reduces air-conditioning loads.

Applications

Facades of business centres and residential complexes.

Rooflights, atriums and panoramic windows.

Energy-efficient building renovation.

Tinted and coloured glass

Colour, privacy and multilayer structures for vehicles and architecture.

Key features

A wide palette, including black with minimal reflectivity.

A coloured layer inside laminated glass, protected from external exposure.

Fragment retention on a polymer interlayer.

Acoustic comfort from the multilayer structure.

Applications

Car side windows.

Entrances, canopies and awnings.

Office partitions, hotel lobbies and shopfronts.

Decorative and laminated glass

Custom designs using colour, patterns and multilayer structures.

Key features

Glass layers protect the decoration from abrasion, moisture and household chemicals.

The multilayer structure preserves the glass's protective properties.

Applications

Partitions with logos and decorative panels.

Reception desks and boutique interiors.

Patterned glass floors and shower enclosures.

Enamelled glass

A decorative coating fired into the glass surface.

Our solution

We manufacture annealed enamelled glass.

Ceramic paint is fired into the surface and becomes an inseparable part of the glass.

A smooth surface and rich colour for finishing applications.

Applications

Decorative cladding and interior panels.

Finishes for columns and commercial spaces.

The specific application is agreed with regard to the design and safety requirements.

Solar-control glass

Limits infrared transmission while remaining transparent to visible light.

Key features

Reduced solar heating of the cabin.

Solar heat protection with clear visibility.

High light transmission without pronounced darkening.

Protection against UV exposure and interior fading.

Applications

Car windscreens and side windows.

Special-purpose vehicle cabins, boat and helicopter glazing.

Electrochromic bullet-resistant glass

Controlled transparency within protective glazing.

Joint production

Our partner makes the armour component, while Octoglass supplies the electrochromic component.

The protective structure retains its ballistic properties.

Light transmission depends on glass thickness and protection class.

Operating mode

Standard electrochromic bullet-resistant glass changes transparency slowly.

A separate Anti-Sniper function provides rapid protective switching.

In everyday use, tinting provides comfort and privacy.

Anti-Sniper

Everyday comfort with automatic protective tinting when a threat arises.

How it works

Rapid switching to protective tinting mode.

Automatic activation by an impact sensor on the glass or an external control device.

Compatible with any armour glass class. Ballistic properties are maintained.

Benefits

Functions as electrically tinted glass in normal mode.

The interior cannot be seen from outside.

Visibility from inside is maintained, unlike PDLC solutions.

Undamaged glass can continue to serve as armour or electrochromic glass.

Wearable electronics

Electrochromic solutions for augmented reality (AR) devices.

Purpose

Control of light transmission through an optical element in an AR device.

Tint adjustment to suit ambient lighting conditions.

Geometry and construction tailored to the customer's optical system.

Applications

Augmented reality headsets and glasses.

Industrial devices for remote assistance and work with digital guidance.

The electrochromic solution is integrated into the device structure.

Electrochromic filters

Controlled light transmission for optical systems.

Main capabilities

Light transmission changes when voltage is applied.

Light flow control without moving parts.

Optical properties tailored to the device's requirements.

Applications

Medical and industrial optics.

Photo and video cameras.

Telescopes and projection systems.

Specialised optical instruments.

Filters for transparent displays

An organic light-emitting diode (OLED) display and an electrochromic filter integrated into glazing.

Technology

The electrochromic filter automatically controls display contrast.

Tinting blocks bright light from outside.

The filter is made on glass. The organic electrochromic system requires an applied voltage.

Solution objectives

Use in passenger cabin glazing.

Acoustic and thermal comfort for passengers as part of an integrated solution.

Improved safety in emergency situations.

From glass processing to production launch

Glass processing

Cutting and all types
of edge finishing

Bevelling, including
curved edges

Colouring

Production and forming

Glass bending and
lamination

3D scanning

Glass-bending moulds

Engineering

R&D / Research / MSP

Feedstock synthesis & purification

Licensing and
equipment

Glazing retrofit: making new glass when the original is unavailable.

Retrofit: the full production cycle

For older, rare, limited-production and special-purpose vehicles.

01

3D capture

Geometry of the glass and mating components.

02

Drawings

CAD model and documentation.

03

Tooling

Manufacture of glass-bending moulds.

04

Forming

Glass bending using a digital model.

05

Lamination

Multilayer structure with polymer interlayers.

The digital model enables design changes and the addition of glass functions.

3D scanning and part digitisation

Capturing geometry digitally at our facility or on the customer's premises.

Capabilities

Russian handheld laser 3D scanner.
Accuracy down to 0.03 mm.

For transparent glass, we use temporary matting and reference markers.

In many cases, fixed glass can be scanned without removal.

Where needed, we capture mounting and adjacent surface geometry.

Deliverables

Point cloud and polygonal 3D model.

CAD model, drawings and engineering documentation.

Data for reverse engineering, retrofit, shape inspection and development.

Glass processing to customer specifications

Cutting and machining

Cutting, all types of edge finishing, polishing and drilling.

Bevelling

Straight and curved bevels.

Colouring

Standard colours and custom requirements.

Glass bending

Glass bending for curved structures.

After processing, the blank can undergo bending and lamination at the Octoglass facility.

Cutting and machining

Automated cutting using drawings and digital models.

Capabilities

Cutting from DXF/DWG files and agreed dimensions.

Straight and shaped geometries.

All types of edge finishing, polishing and drilling.

Computer-controlled machine with laser positioning of the cutting head.

Applications

Automotive blanks and technical glazing.

Parts for glass bending and special products.

From individual prototypes to production batches.

Cutting as a separate service or a production stage.

Production and forming

Lamination

Multilayer structures with polymer interlayers.

3D scanning

Precise geometry capture for product design.

Glass-bending moulds

Design and manufacture of tooling for glass bending.

We develop the complete production process for each project.

Engineering and production launch

R&D / Research / MSP

Development and adaptation of solutions to technical specifications.

Chemical feedstock

Synthesis and purification on request.

Licensing

Technology transfer and support for launching electrochromic glass production.

Equipment

Glass-processing equipment.

We work with manufacturers, architects and industrial customers.

Starting a project

Our process for B2B partners.

01

Enquiry

Vehicle, glass
or building
requirements.

02

Selection

Technology and
design tailored
to the task.

03

Agreement

Geometry,
configuration,
lead times and
requirements.

04

Production

Manufacturing
with quality
control. From
15 days.

05

Support

Advice on
installation
and use.

PARTNERSHIP AND PRODUCTION

Tell us about your project

Octoglass manufactures glazing tailored to the vehicle or building's requirements.

Contacts

octoglass.ru
+7 (499) 380-69-11
sales@octoglass.ru

**Send the vehicle model
or building specifications.
We will propose
a suitable solution.**