



ISOCLIMA

YOUR INNOVATIVE TRANSPARENT SOLUTIONS



Marine

Automotive

Marine

Military

Railway

Aerospace

Architectural



2019
PC coating and special applications on
Automotive and Aerospace.

2015
Bending furnace plant.

2010
Manufacture of ultra-light glazings
using Gorilla Glass.

2002
Acquisition of the manufacturing plant
Lipik Glas in Croatia.

2000
Installation of a
"magnetron sputtering" system
for the deposit of thin metal layers.

1996
Manufacture of glazings
for High-speed trains.

1994
Installation of a chemical
strengthening plant,
the largest in Europe.

1986
Manufacture of micro-wire
heated glazings.

1981
Manufacture of windows
with polished and un-sealed edges.

1979
Registered license to manufacture
glass with polycarbonate.

2017
Aerospace development with
transparent helicopter application.

2013
Development of Iposcope products.

2005
Manufacture of "CromaLite" glazings
with SPD technology.

2001
Manufacture of "PrivaLite" glazings
with laminated liquid crystal film
manufacture of glazing for the marine
market (curved laminated glazings
chemically strengthened).

1997
Acquisition of a manufacturing plant
in Mexicali and foundation
of **ISOCLIMA** de Mexico.

1995
Manufacture of composite glazings
(PC or methacrylate) for the
racing car market.

1988
Manufacture of products
for the aerospace market.

1984
Purchasing of a furnace for the
thermal tempering process, enabling
the curvature of large glazings
(2.2x4m).

1980
1st in Europe to manufacture
bullet-resistant glazings using
glass+PC.

1977
Year of **ISOCLIMA**'s foundation,
production of double-glazing windows.



The Company

The World leader in the market of high-performance glass, thanks to the technologies applied and developed over time, **ISOCLIMA** is committed to the constant pursuit of perfection, quality, and a product developed for the personal safety and protection of its customers on Land, Air and by Sea.

ISOCLIMA finds solutions based on the customer's needs aiming for longterm results.

Always ready to accept new challenges and to invest in R&D, **ISOCLIMA** represents the point of reference as the leader in the markets in which it operates.



ISOCLIMA's World

Today **ISOCLIMA** stands out thanks to the reputation acquired over the years as well as the co-engineering processes that allow **ISOCLIMA** to be the supplier of the main automotive groups in the world (FCA Group, Daimler Group, BMW Group, VW-Audi Group,...).

The large range of the products that **ISOCLIMA** can offer is highly appreciated in various markets and sectors, especially for the ever increasing demand of products with high quality standards.

A special feature of the company is the ability to respond to every need and to succeed in tailoring the product to the customer's requirements, specifically with reference to resistance, protection, solar and energy control.

ISOCLIMA's History

ISOCLIMA was founded in 1977 as a glass processing company for architectural products. Within a short period its emphasis was directed to the research and development of new technologies to achieve high ballistic performance transparent composite panels, particularly using glass and polycarbonate.

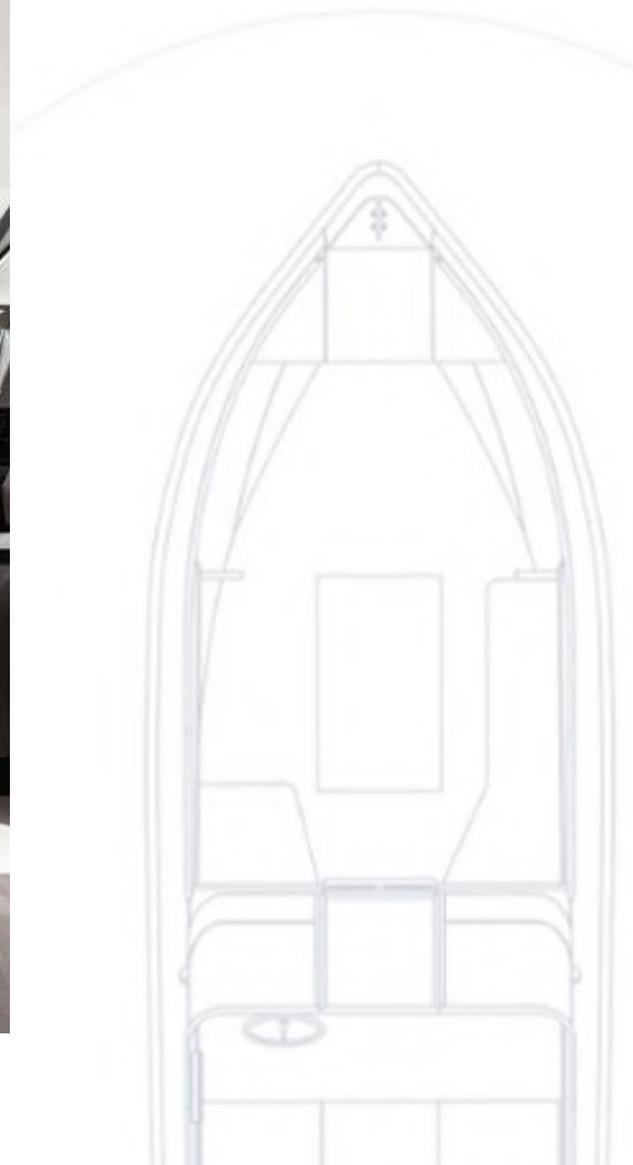
The combination of these two materials laminated together has allowed the company to offer bullet-resistant glazings, with the advantage of being "No-Spall", allowing an equivalent performance to then existing products but being far thinner and lighter.

ISOCLIMA has expanded over time with the acquisition of other important Italian and foreign glass companies, such as **ISOCLIMA** de Mexico S.A. de C.V. in Mexico and Lipik Glas d.o.o. in Croatia.

Marine

Enhanced aesthetics and advanced technology are now viewed as a pre-requisite in ship and boat building as well as, new shapes and increased comfort. **ISOCLIMA**'s contribution has been the introduction of the concept of structurally bonded glass for marine use, a long-established process in the automotive industry. The elimination of the containment frame from glass panels and the use of solar control glass have brought about a marked functional and aesthetic improvement, in particular affording designers the possibility of giving the boats curved and sinuous lines with maximum continuity, even across the glass surface.

The in-depth knowledge of issues related to bonding glass to dynamic structures, the compatibility of the different materials used, the optical and energy characteristics of glass products, as well as the different techniques used for working and toughening glass, have given **ISOCLIMA** a leading edge in this market, with advanced proposals and solutions for this industry.





Courtesy of Overmarine Group photo archive

Know-how

- **Anti-IR coating**

ISOCLIMA guarantees efficient performance, in terms of comfort and energy saving with its Anti-IR coating, a selective filter which works as a solar protection element.

- **Hybrid Armored Transparent Composite (HATC)**

HATC is a new lightweight cross-section, adopting next generation high performance materials which allow an impressive thickness and weight reduction compared to standard armored transparent panels. Also the ballistic performances benefits from the material properties, providing a higher multi-hit capability.

- **Magnetron Sputtering**

The process of magnetron sputtering consists in the generation and confinement of argon gas plasma through an electric field. The process deposits thin conducting or semiconducting layers on the glass panels and covers large size curved surfaces, reaching absolutely outstanding performance in terms of light transmission and electrical resistivity.

- **Thermal toughening**

During the thermal toughening process the residual stress level is obtained via transitory thermal gradients that are determined in the stage of rapid cooling from temperatures above the glass transition temperature.

- **Chemical strengthening**

The chemical strengthening process is a surface treatment which takes place at temperatures below the glass transition temperature. The residual stress level is characterized by compressive tensions on the surface offset by the traction tensions within the glass.

- **Encapsulation**

Encapsulation is a lamination process developed for the application of the rubber gasket. This technology provides a significant increase of the glass panel durability and reduction of the life cycle cost of the final product. A significant cost reduction and service friendliness is guaranteed by avoiding gluing and sealing process.

Products

- **Secur®**

It is a high-technology, transparent, bullet-resistant security glass panel designed to protect public, residential and commercial buildings, and civilian vehicles. It has been designed to withstand high-energy ballistic impact and prolonged physical attacks, or a combination of the two.

- **CromaLite®**

CROMALITE® is a laminated glass panel that incorporates an electro-optic film based on SPD technology (Suspended Particles Devices). The system is activated by an electric field capable of orienting the suspended particles inside the film. This allows us to efficiently control the transmitted solar radiation in both the visible and the solar range.

- **IsoLite®**

It is a panel containing an internal liquid crystal film that allows, by the flip of a switch, to change instantly from transparent to opaque. ISOLITE® panels are designed to create a bright and welcoming environment, which may, depending on the necessity, become private and confidential.

- **MagicLite®**

This panel is obtained by a special patented film which includes LED lights without using unsightly micro-wires. It offers a variety of possible applications, such as ceilings, balustrades and partitions for use in various industries to create dramatic lighting effects while maintaining the transparency of glass. The result is a multitasking panel, which illuminates while being highly decorative. The panel is available in different colours and the LEDs come in blue, green, red, yellow, white.

- **OmniArmor®**

OMNIARMOR® is a high-technology, transparent, bullet-resistant security glass panel designed to protect public, residential and commercial buildings, and civilian and military armored vehicles. It has been designed and developed to withstand high-energy ballistic impact and prolonged physical attacks, or a combination of the two.

Case Histories



Sanlorenzo SL94



Sw82 Feelin' Good
Courtesy of Southern Wind Shipyard



Azimut 105



Dreamline DL26M

Contest 42CS



VSY My Stella Maris
Courtesy of VSY



Isa Yacht 140



Benetti 140 Veloce



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