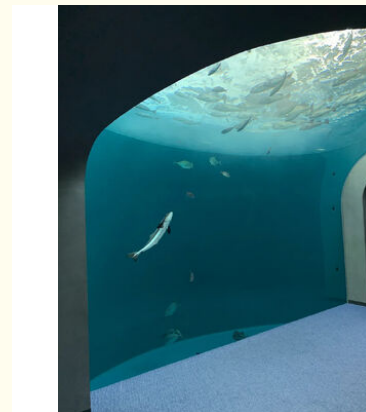


Aquarium Military Grade PMMA Underwater Viewing Window Pressure Resistance

Our Product Introduction

Basic Information

- Minimum Order Quantity: 5set
- Price: Negotiable
- Packaging Details: Wooden box packaging, cardboard box packaging
- Delivery Time: 7-10 work days
- Payment Terms: L/C,D/P,T/T
- Supply Ability: 500sets/Year



Product Specification

- Material: PMMA
- Standard Size: Customizable
- Color: Customizable
- Feature: Luminous
- Service: OEM/ODM
- Application: Mall/Restaurant/Office/Home/Exhibition/Guardrail
- Highlight: **Underwater Viewing Window ,
Corrosion Resistance Underwater Viewing Window
, PMMA Underwater Viewing Window**

for more products please visit us on custom-acrylicproducts.com

Product Description

Product Description

JAFFA Acrylic Underwater Viewing Windows are core viewing systems custom-designed for high-end underwater restaurants, aquariums, luxury yachts, underwater homestays, and cultural tourism landmark projects. Crafted from military-grade ultra-thick acrylic panels through integral casting and seamless splicing technology, we create an underwater viewing interface that combines extreme pressure resistance with a panoramic view. Breaking the physical boundary between water areas and spaces, it allows users to immerse themselves in the beauty of the underwater world, and is widely used in core scenarios such as underwater catering, marine cultural tourism experience, and scientific research observation.

- **Deep-Sea Grade Pressure Resistance:** Integral cast acrylic panels are adopted, which can withstand hydrostatic pressure of 10m–50m underwater. Combined with a high-strength metal anchoring structure, they pass rigorous water pressure tests and impact resistance tests to ensure structural safety and operational stability in deep-sea environments.
- **Panoramic Transparent View:** Ultra-white high-transparent acrylic material with a light transmittance of up to 92% and no optical distortion. It supports customization of various shapes such as arc, arch, rectangle, and panoramic curved surface, maximizing the viewing angle and restoring the real light and shadow and biological dynamics of the seabed.
- **Weather and Corrosion Resistance Design:** Exclusive anti-marine corrosion treatment, perfectly adapting to harsh environments such as seawater and high humidity. It will not yellow, fog or be corroded by seawater after long-term use, balancing appearance and durability.
- **End-to-End Custom Service:** One-stop solutions from hydrological survey, structural calculation, 3D modeling to production and installation are provided. Exclusive sizes and shapes can be customized according to the project's water depth, water environment and space design needs to create iconic underwater spaces.

Product Attributes

- **Core Material:** Military-grade integral cast acrylic (PMMA), thickness options: 50mm–500mm (customized according to water depth)
- **Auxiliary Materials:** 316L stainless steel anchoring frame, marine-grade waterproof sealing system, anti-corrosion protective coating
- **Process System:** Integral casting, CNC precision carving, mirror polishing, deep water pressure test, marine anti-corrosion treatment
- **Functional Configuration:** Anti-fog system, underwater cleaning interface, structural health monitoring module, emergency protection device
- **Application Scenarios:** Underwater restaurants, aquarium viewing cabins, underwater homestays, luxury yacht underwater viewing platforms, marine scientific research observation stations
- **Structural Forms:** Arch, arc, rectangle, panoramic curved surface, custom special shapes (supporting ultra-large span splicing)

Customization Parameters Table

Parameter	Options/Specifications
Acrylic Thickness	50mm / 100mm / 150mm / 200mm / 300mm / 500mm (customized at a 1:10 ratio according to underwater depth)
Applicable Water Depth	Shallow water type ($\leq 10\text{m}$), medium water depth type (10m–30m), deep water depth type (30m–50m)
Shape Dimensions	Maximum size of a single panel: 3m (width) * 5m (height); ultra-large spans can be seamlessly spliced (maximum splicing width 10m+)
Shape Design	Arch, arc, rectangle, panoramic curved surface, special shapes (customized according to space design and viewing needs)
Sealing Grade	IP68 marine-grade waterproof sealing, suitable for long-term seawater immersion environment
Impact Resistance Grade	Resistant to underwater biological impact ($\leq 500\text{kg}$ impact force), in line with marine engineering safety standards
Supporting Systems	Automatic anti-fog system, underwater mechanical cleaning device, structural stress monitoring module (optional)
Construction Period	Shallow water projects: 45–60 days; medium/deep water projects: 60–90 days

Frequently Asked Questions (FAQ)

2. How to ensure the pressure resistance of acrylic underwater viewing windows?

We use military-grade integral cast acrylic instead of ordinary spliced panels, which has uniform material density and strong pressure resistance. At the same time, precise structural calculation is carried out according to the actual water depth of the project, combined with a 316L stainless steel heavy-duty anchoring frame. Before leaving the factory, it passes a 72-hour deep water static pressure test to ensure no deformation or leakage within the designed water depth.

3. Will long-term immersion in seawater cause acrylic to yellow or corrode?

No. Our acrylic panels are treated with an exclusive marine anti-corrosion coating and added with UV and anti-corrosion additives, which can resist seawater salt corrosion and microbial adhesion. They will not yellow or fog after more than 15 years of normal use outdoors/underwater, and always maintain a high-transparent viewing effect.

4. How to solve the anti-fog and cleaning problems of underwater viewing windows?

An embedded automatic anti-fog system is standard, which avoids fogging caused by temperature difference between inside and outside through constant temperature control. At the same time, an underwater cleaning interface is reserved, which can be matched with a customized underwater mechanical cleaning device to easily clean attached algae and microorganisms without manual underwater operation, making maintenance convenient.

5. How to achieve seamless splicing of ultra-large span underwater viewing windows?

A patented seamless splicing process is adopted to achieve tight seam closure of panels through high-precision CNC processing. Combined with marine-grade special adhesive, the pressure resistance of the splicing part is consistent with that of the main body, and there is no obvious seam visually, ensuring the integrity and beauty of the panoramic view.

6. Do you provide technical support and installation services for overseas projects?

Yes. We have a professional marine engineering installation team that can undertake underwater projects worldwide, providing end-to-end services including hydrological survey, scheme design, marine logistics, on-site installation and commissioning. We have completed many underwater restaurant and aquarium projects on overseas islands.



JAFFA Plastics (Shanghai) Co., Ltd.



13661474761



jaffabrandofficial@gmail.com



custom-acrylicproducts.com

No. 773, Furun Road, Nanhu District, Jiaxing City, Zhejiang Province