

# AQUARIA

UNDERWATER CAST ACRYLICS TECHNOLOGIES

®

CLAX<sup>®</sup>  
Italia

PMMA Aquaria can be curved by thermomorming, in order to realize big cylinders and tunnels keeping unaltered its excellent optical and transperence properties.



Aquaria, monolithic blocks in methacrylate (PMMA) chemically treated and produced for specific use in the underwater field.

Among the most interesting uses of Perclax<sup>®</sup> blocks, there are big windows in PMMA, Aquaria<sup>®</sup>, for aquariums; *not laminated*, chemically treated and produced for the specific use in the underwater field. In the last years, this so innovative material has been used for the new generation of big public or private aquariums.

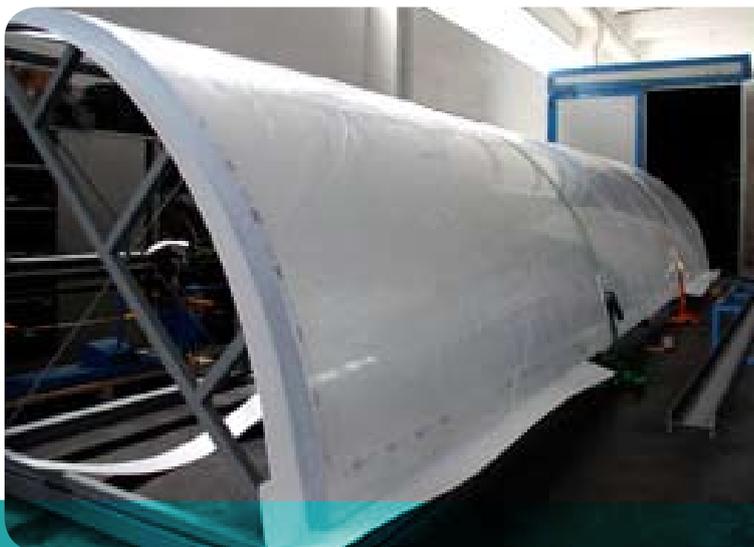
The exceptional transperance, resistance and versatility of the methacrylate (PMMA) Aquaria<sup>®</sup>, has allowed us to exceed all expectations either in the building up or in the design as well of the tanks for the biggest aquariums in the world.

It can be produced as sheets or blocks flat or curved, in various sizes and thicknesses as to resist the high pressure of tons of water.

Furthermore the PMMA Aquaria<sup>®</sup> can be curved by thermoforming in order to realize big cylinders and tunnels keeping unaltered its excellent optical and transperance properties.



Besides standing out for its extreme pureness, brightness, transparency, lightness and resistance to aging, the PMMA Aquaria® stands also out for its standard production of big monolithic blocks with thickness up to mm 305 and sizes up to mm 7800x3050.



### Properties

Density	1,19g/cm3
Modulus of Elasticity	≥ 3000 N/mm <sup>2</sup>
Tensile Strength	≥ 70 N/mm <sup>2</sup>
Elongation	≥ 4%
Molecular Weight	>3.000.000
Free Monome	< 1%
Light Transmittance	≥ 92%
Turbidity	≤ 0,5%
Refractive Index	1,49
Vicat	> 105° C

### Monolithic standard production for aquariums:

da 30 a 305	4050 x 3050	---	5050 x 3050	6050 x 3050	---
da 30 a 135	---	---	---	---	7850 x 3050
da 130 a 305	---	5030 x 2040	---	---	---

Aquaria® is a Perclax® special methacrylate manufactured by Clax Italia and it is entirely made of PMMA. A thermoplastic polymer obtained by polymerization in mass of pure monomer, by casting.

In the last years, this so innovative material has been used for the new generation of public and private aquariums.





Clax Italia's Aquarium division's team, gets the technology and the know-how for the installation of exceptional sized big windows for aquariums

So important for the perfect assembly of big elements in PMMA, are the technologies, the installation's technique, the assembling and the glue. Specially for the high thickness blocks, the installation's technology and the gluing have to be carried out without compromise transparency and pureness.

Result of a thorough and meticulous reserch and development study, are the chemical glues manufactured by Clax Italia and realized "ad hoc" for this specific field.



The production of high thickness cast acrylic blocks with a high molecular weight for underwater use, are a prerogative of Clax Italia **Aquarium Division** and are identified under the trademark **Aquaria**, that also grants:

- Calculated and calibrated thicknesses, chemical/physic properties which take into consideration a static and steady push due to the wather weight over one of the two surfaces.
- Blocks in pure cast polimethylmethacrylate (PMMA) subjected to an annealing process that grants the complete polymerization and reduces the material's inside tensions.
- Surfaces with a minimum toatl light's transmission of >/- 92%.