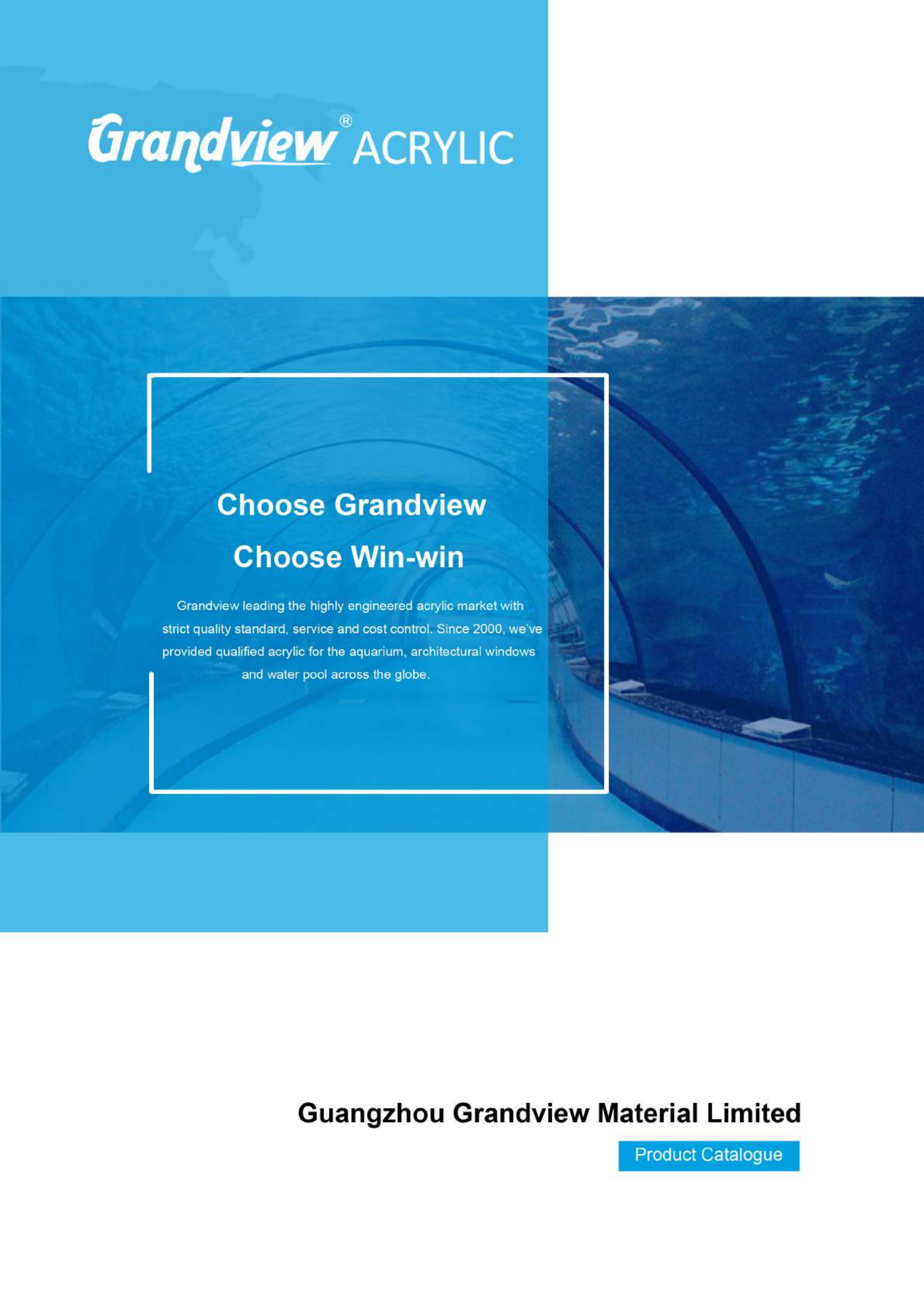


The background of the page is a composite image. The top left is a solid blue rectangle. The rest of the page features a photograph of an underwater tunnel, likely inside an aquarium, with curved acrylic walls and water visible on the right side. The company logo is positioned in the top left blue area.

# *Grandview*<sup>®</sup> ACRYLIC

## Choose Grandview Choose Win-win

Grandview leading the highly engineered acrylic market with strict quality standard, service and cost control. Since 2000, we've provided qualified acrylic for the aquarium, architectural windows and water pool across the globe.

**Guangzhou Grandview Material Limited**

Product Catalogue

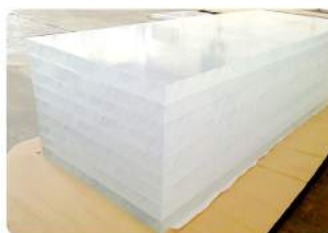


## Products

### Thick Cast Acrylic sheet

Grandview produce the cast methacrylate. It is entirely composed of PMMA, a thermoplastic polymer obtained by bulk-monomer polymerization by casting processes. the raw material MMA was from Lucite China with 100% purity.

Based on the most innovative and advanced technologies, GRANDVIEW Acrylic stands out for its outstanding optical properties, extreme purity, transparency, lightness, toughness and excellent light, aging, weathering and chemical reagent resistance, as well as for the rigorous checks systematically performed on thickness tolerances.



## Specifications

### SIZE

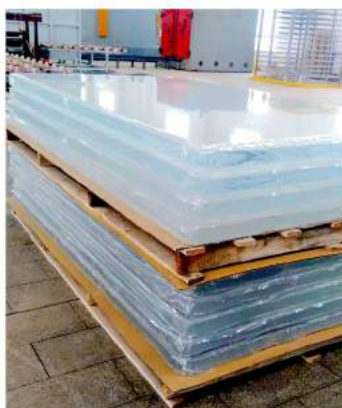
Thickness: 20 – 300 mm  
Length: 11500 mm max  
Width: 3700 mm max

### Max Size before bonding:

H 3000 mm x L 11500 mm x T 220 mm  
H 3700 mm x L 8000mm x T 300 mm

### FEATURES

Lucite raw MMA 100% purity  
Anti-UV, 10 years against yellowing  
One-Time cast production



| Size(mm)  | Thickness(mm) | Size(mm)   | Thickness(mm) |
|-----------|---------------|------------|---------------|
| 2500*1300 | 20            | 4250*2750  | 100           |
|           | 25            |            | 110           |
|           | 30            |            | 120           |
| 2600*1600 | 35            | 6350*3180  | 130           |
|           | 40            |            | 140           |
| 2650*1350 | 45            |            | 150           |
|           | 50            | 8350*3180  | 160           |
|           | 55            |            | 170           |
| 3150*1650 | 60            |            | 180           |
|           | 65            | 8850*3180  | 190           |
|           | 70            |            | 200           |
| 3180*2180 | 75            |            | 220           |
|           | 80            |            | 250           |
| 3500*1650 | 85            |            | 300           |
|           | 90            | Customized |               |



## SGS (Test report)

| No. | Test Item                      | Test Method                                              | Result                     |         |
|-----|--------------------------------|----------------------------------------------------------|----------------------------|---------|
| 1   | Charpy Notched Impact Strength | EN ISO 179-1:2010                                        | 1.7kJ/m C (Complete break) |         |
| 2   | Compressive strength           | EN ISO 604:2002                                          | 123MPa                     |         |
| 3   | Density                        | EN ISO 1183-1:2012 Method A                              | 1.184g/cm <sup>3</sup>     |         |
| 4   | Dimensional Stability          | With reference to ASTM D1204-14 and client's requirement | X direction                | 0%      |
|     |                                |                                                          | Y direction                | 0%      |
| 5   | Flexural strength              | EN ISO 178:2010 Method A                                 | 118MPa                     |         |
| 6   | Rockwell Hardness              | EN ISO 2039-2:1987                                       | 125R                       |         |
| 7   | Tensile Modulus                | EN ISO 527-1:2012 & EN ISO 527-2:2012                    | 3150MPa                    |         |
| 8   | Tensile Test                   | EN ISO 527-1:2012 & EN ISO 527-2:2012                    | Tensile Strength           | 64.7MPa |
|     |                                |                                                          | Tensile Strain at break    | 3.5%    |
| 9   | Total Luminous Transmittance   | EN ISO 13468-1:1996                                      | 91.2%                      |         |
| 10  | Vicat Softening Temperature    | EN ISO 306:2013 Method B50                               | 101°C                      |         |
| 11  | Water Absorption               | EN ISO 62:2008 Method                                    | 0.23%                      |         |

## Productuion

### 3 production lines

- We have 45 warm water baths includes small and larger. The largest one is 4 x 15.5 m.
- 4 sets Annealing Oven, Many Glass Mold.
- 3 sets polishing and CNC machine.

800 tons per month capacity

Large quantity in stock

According to a wide array of artistic, hand-crafted and industrial production processes, PMMA plates can be processed or thermoformed.



## Installation guide

The width of the concrete slot is 70mm more than the thickness of acrylic panel. For example, if the thickness of acrylic is 100mm, then the width of the concrete slot is 170mm, it is 35mm each side between the acrylic panel and slot wall (5mm for waterproof coating, and 30mm for Sealant).

According to the CAD drawings, built a concrete foundations. The tolerance of concrete slot should be within  $\pm 3$  mm in vertical and horizontal directions, if the tolerance more than 3 mm, the concrete slot need to be plastered, which is to make sure the tolerance is within 3 mm.

After the plastered concrete is completely dry, using epoxy resin to waterproof treatment on the surface. The thickness of the waterproof coating is about 5 mm, after that, let it dry.

Check the waterproof coating and confirm it is correct, then lift the acrylic panel into the concrete slot, if the bottom of the slot is not flat, adjust with a pad, then fill the concrete slot with sealant (DOW CORNING JS168 ). All things done, water can be released after one week.



## In-depth design

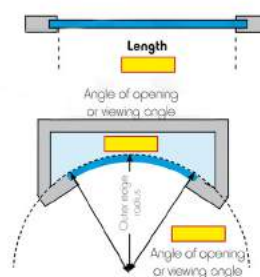
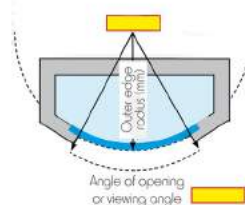
In-depth design the details of acrylic element

Send us the project layout, and all requirements on the acrylic parts, we adjust the right structure to ensure long-term and stable use of the product.

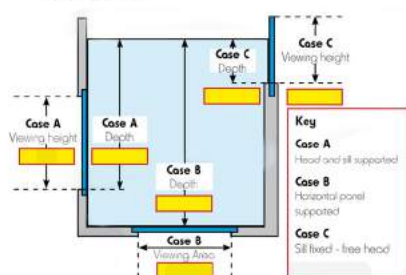
We adjust the right size to facilitate the production, transportation and installation of acrylic.

According to board size, water depth and water pressure, we calculate acrylic thickness.

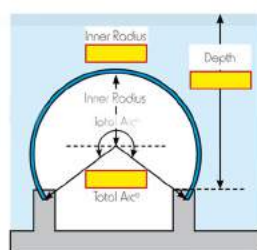
1). Please select the plan view of the window of your window type



2). Please select your window type cross section

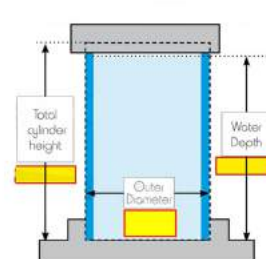


Tunnels and curved panels



Tunnel or segment length

Cylinders



## Case studies

| Project           | City/State     | Country   |
|-------------------|----------------|-----------|
| The Dubai Zoo     | Dubai          | UAE       |
| The Spa Center    | Long Beach     | U.S.      |
| The Acrylic Pool  | Tampa, Florida | U.S.      |
| Sydney Zoo        | Sydney         | Australia |
| Aquarian          | Lastrup        | Germany   |
| Aquarium tunnel   | Gdansk         | Poland    |
| The Waterpark     | Moskva         | Russia    |
| Ocean Aquarium    | Mumbai         | India     |
| Qinhu Ocean World | Qinhu, Jiangsu | China     |
| Yiyang Aqua City  | Yiyang, Hunan  | China     |
| The Villa Pool    | Sanya, Hainan  | China     |
| .....             |                |           |



## Applications



They can be employed in a variety of uses

1. aquarium windows
2. underwater windows
3. swimming pool windows
4. roofing and building construction
5. finishing and furnishing
6. objects, noise barriers and in many other fields such as the food, energetic, scientific, military and medical ones





**Grandview<sup>®</sup>**

ACRYLIC



**Guangzhou Grandview Material Limited**

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