

ASTARIGLAS®

CAST ACRYLIC SHEET



 **ASTARI**



Company Profile

Astari Niagara Internasional is the largest independent cell cast acrylic sheet manufacturer in Asia and one of the largest in the world.

We manufacture high-quality acrylic sheets, providing a comprehensive range of colours and sizes for our customers worldwide.

With more than 35 years of experience since 1980, more than 20 years in the international market, serving over 130 destinations in more than 40 countries, Astari has built a sound reputation for reliability, integrity, focus on quality, and commitment to service. We have built a strong presence all over the world, such as North America, Europe, United Kingdom, Asia Pacific, Middle East and Africa.

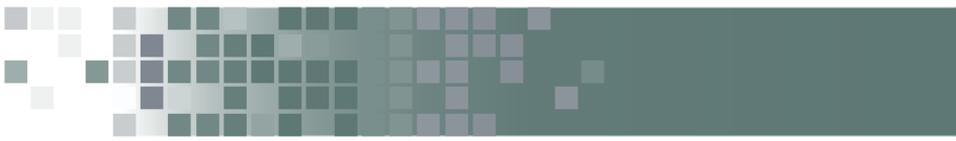
We pride ourselves in having continued rapid growth over the past many years, relying on our philosophy to commit to continuous improvement to stay ahead and to having long term relationships with our customers. Astari is an agile and energetic organization with proven financial prudence and its shareholders are committed to reinvest in the business and its people.



Why Astariglas®?

- Competitive Premium Product Quality
 - One stop shop for cell cast acrylic sheets (wide range of products)
 - Best quality consistency (thickness control, flatness, dimensional stability)
 - Best balance of properties (chemical and scratch resistances, optical clarity)
 - Commitment to quality (process control and 100% sheet inspection)
- Best in Class Service
 - Exporting internationally since 1994
 - Proven track record of on-time deliveries
 - Marketing and promotional tools
- Production Capacity and Capability
 - Capacity, reliability and security of supply
 - Latest technology and equipment
- Commitment to Continuous Investment:
 - People
 - Technology and R&D (process and product)
 - New manufacturing assets





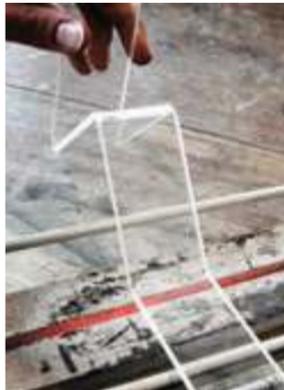
ASTARIGLAS® HP

HP stands for High Productivity. Astariglas® HP is specifically designed to improve fabrication productivity in all different types of fabrication process.

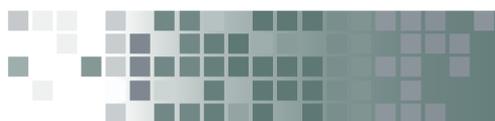
Fabrication	Astariglas® HP benefits:
Gluing	<ul style="list-style-type: none">• Faster glue set up time• Better wet-out of glue• Excellent bond strength• Visually appealing bonds
Machining	<p>More resistance to:</p> <ul style="list-style-type: none">• Chipping• Cracking <p>• Stress crazing (due to fabrication process)</p>
Flame polishing	Outstanding
Heat bending	Short cycle time for heating
Thermoforming	Short cycle time for heating and improved definition

Applications

Astariglas® HP is a perfect choice for fabricators who produce acrylic products in large quantities and/or is in need to meet tight timelines.







ASTARIGLAS® BLOCKS

ASTARIGLAS® BLOCKS Clear is weather resistant, strong, non-toxic and transmit a great deal of light. These properties make clear blocks an excellent choice for many applications like souvenirs, furniture and store displays which make use of these qualities.

ASTARIGLAS® BLOCKS gives a powerful statement with its distortion-free view. Available in Crystal Clear, ASTARIGLAS® BLOCKS has high mechanical and chemical resistance and is easy to work with, even in complex fabrications. Available in standard thickness from 25, 30, 35, 40, and 50mm.

Properties

- Crystal clear, undistorted view
- Monolithic, no lamination
- A single unit for simple and practical implementation
- High resistance to solvents and chemicals
- Easily fabricated, cemented and bonded
- Illumination possible by homogeneous diffusion of light and by backlighting with ASTARIGLAS® BLOCKS opaque colour

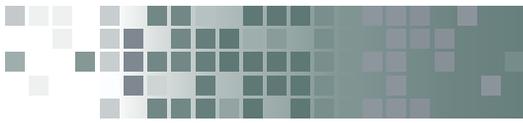


Applications

Because of its unique properties, ASTARIGLAS® BLOCKS is ideal for a wide range of applications, such as:

- Trophy
- Aquariums
- Signs
- Furniture
- Displays
- Industrial parts





ASTARIGLAS® TESSEMATT

TESSEMATT is the name for ASTARIGLAS® range of matt satin-textured cast acrylic sheets. The name comes from the Latin word “tessera” which means a small cube of coloured glass used for ornamental purposes. This special texture provides elements of elegance and warmth. It retains the “frosted look” even after thermoforming, sawing and drilling.

Customers may choose from different colours, as light is diffused uniformly, thereby softening strong colours and subtly filtering the light to reduce glare. The pleasant-to-touch surface makes this type of material suitable for furniture and certain architectural applications, as well as many other applications.

ASTARIGLAS® TESSEMATT is available in single-sided (TESSEMATT S) and double-sided satin surface (TESSEMATT DS). Available in standard thickness from 3 -12mm.

Properties

ASTARIGLAS® TESSEMATT offers unique features:

- Available in a bright range of colours
- Satin surface hides scuff marks
- No “fingerprint” when touched
- Well-balanced in light transmission and diffusion
- Ten times the impact strength of glass
- Easy to fabricate with wood working tools
- Easily cleaned
- Completely recyclable

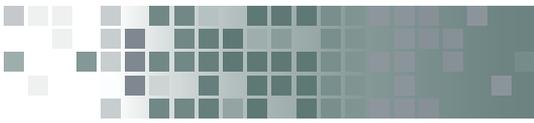
Applications

ASTARIGLAS® TESSEMATT offers excellent solutions for:

- Architectural applications such as stairways, windows, lighting, domes, arches to bridges
- Retail fixture displays
- Exhibition booths
- Decorative glazing, partitions, shelves, furniture
- Opal White in translucent grade as cover for lamps and skylights
- Completely recyclable







ASTARIGLAS® LED

Characterized by slim profile, reliability, low energy and long service life, LED lighting is increasingly more popular to illuminate signboards and other display applications, gradually replacing traditional light sources.

Taking advantage of LED lights' brilliant features, including optimized backlighting performance, we are proud to introduce ASTARIGLAS® LED cast acrylic sheets, which provide high quality lighting while eliminating many of the constraints and challenges that existing LED lighting systems impose.

The sheets come in opal white and various colours, enabling sign makers and designers to enjoy the virtues of LED lights and create slimmer, brighter and cost-effective backlit solutions.

ASTARIGLAS® LED Opal White

Used for its superior light diffusing properties, ASTARIGLAS® LED Opal White is manufactured with customized formula that allows designers to create slimmer and stylish signage boxes.

The backlighting offers high degree of white opacity in incident light and daylight. Another benefit is the ability to conceal hotspots from LED lamps without compromising brightness, due to optimized translucency that provides high transmission paired with maximum light diffusion.

ASTARIGLAS® LED opal white sheets are available in standard thickness of 3 mm to 6 mm -- W436 LD with high transmission and W437 LD with pronounced light diffusion.

ASTARIGLAS® LED Colours

These translucent sheets utilize technology that combines good light diffusion and optimal light transmission, allowing the coloured surface to glow evenly without LED hotspots, creating complete energy-efficient LED signage designs.

ASTARIGLAS® LED delivers maximum efficiency and superior lighting performance, making them predominantly used in illuminated signs, store fixtures and exhibition booths.

ASTARIGLAS® LED coloured sheets are available in 3 mm to 6 mm standard thickness. Compared to conventional fluorescent and neon tubes, illuminated signs with ASTARIGLAS® LED consumes less energy. This is increasingly important in signage construction as advertising displays are often illuminated 24/7.

Benefit of ASTARIGLAS® LED

ASTARIGLAS® LED sheets offer innovative backlit solutions with the following benefits:

- Maximized hiding power to conceal LED light sources and eliminate "banding" or "hotspots" as close as 3 cm from light source
- Optimum brightness and strength of colour
- Improved light diffusion that leads to higher luminous efficiency
- Low energy use and heat output, making them cost effective and environmentally feasible
- Elegant slim backlit signage solutions
- Weather resistant
- Retains the superior physical attributes and characteristics of cast acrylic sheet products
- Trouble-free fabrication
- Lightweight - half the weight of glass

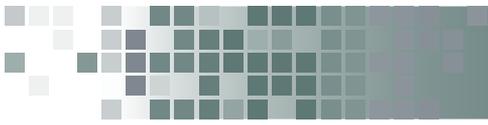
Applications

ASTARIGLAS® LED is perfect for any illuminated application in commercial, industrial, residential and professional uses, both for indoor and outdoor utilization.

ASTARIGLAS® LED is particularly brilliant for:

- Glowing letters
- Slim light boxes
- Backlighting in exhibition booths
- Store fixtures
- Interior design and architectural features





ASTARIGLAS® LED BLOCKS

Astariglas® LED BLOCKS is a dazzling alternative to traditionally constructed letters as they allow sign makers to route out channels and embed LED lights either inside or on a mounting plate. The results are stylish, one-piece letters with optimized brightness and even light diffusion to maximize the environmental and economic benefits of energy-saving LED technology.

ASTARIGLAS® LED BLOCKS is perfect for block shape designs illuminated by homogeneous diffusion of LED backlighting. The WR 438 LD of LED Blocks are available in 25, 30, and 35 mm thickness.

Benefit of ASTARIGLAS® LED BLOCKS

- Easier fabrication and installation (leads to lower installation cost) vs conventional method
- Brighter illumination, even from the sides
- Highly stylish results
- Low maintenance
- Broad processing latitude: with a wide range of options (shallow and deep routing)
- Lower energy consumption due to lower number of LED lamps to achieve the same brightness

Applications

ASTARIGLAS® LED BLOCKS can be incorporated into commercial, industrial, residential and professional applications, both for indoor and outdoor installations.

The LED light source can be embedded in routed cavities of thick blocks to make illuminated sign letters. For the best result of light diffusion, the remaining walls after the routing should be at least 12 mm thick.

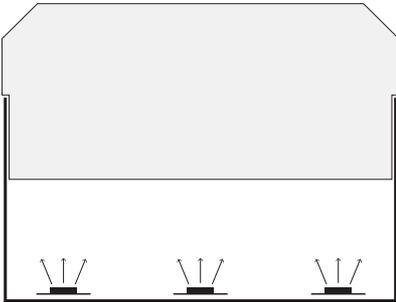
ASTARIGLAS® LED BLOCKS is particularly brilliant for:

- Channel letters
- Signage
- Furniture
- Displays
- Architectural features



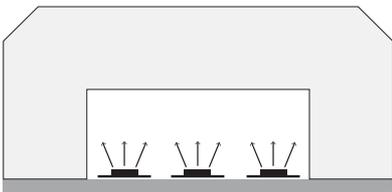
How to use LED Blocks

• Backlighting with a thick sheet

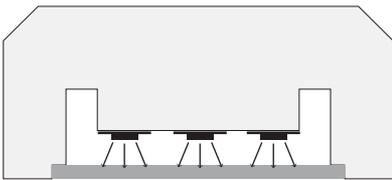
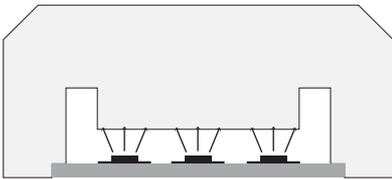


- This concept is using LED Light at the back of the Blocks and delivering light to the front
- This type of LED Blocks backlighting is the most commonly used

• Direct/indirect lighting with routing

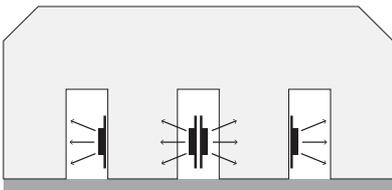


- Direct Backlighting LED Mounted to the backing tray

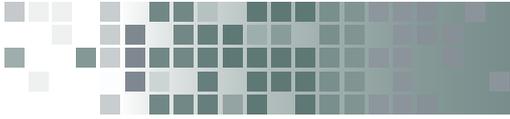


- Another way to route Astariglas® LED Blocks for direct and indirect lighting is by creating a deeper gutter in the edge of the cavities.
- Direct lighting usually results in brighter signage while indirect lighting reflected onto mirror have better light dispersion but lower light intensity.

• Lighting with embedded flexible LED Strips



- This technique involves grooving Astariglas® LED Blocks, where the gutter is just wide enough to slip in some flexible LED strips. Fabricators can apply more than one gutter depending on the width of the letter stroke.
- The LED lights can be positioned facing inside out, or outside in or both ways.



ASTARIGLAS® GP

ASTARIGLAS® GP cast acrylic sheets are made from 100% virgin MMA (methyl methacrylate monomer) ensuring that the highest quality product is achieved. This ensure excellent clarity, weatherability and high strength. They have been certified by Underwriters Laboratories to UL-94HB., which is the highest flammability rating obtainable for acrylic sheet with 92% light transmission. They can be thermoformed, cut, drilled, bent, machined, engraved, polished, and glued.

ASTARIGLAS® GP is made to exacting standards, offering excellent optical characteristics, light stability and low internal stress levels for consistent performance.

ASTARIGLAS® GP is available in wide range of standard sizes in clear, opals, white, tinted colours, transparent colours, translucent colours, fluorescent colours, and the standard thicknesses from 2mm to 20mm.

Properties

ASTARIGLAS® GP is a lightweight, rigid thermoplastic material that has higher breakage resistance than standard glass and highly resistant to weather conditions. ASTARIGLAS® GP can be easily sawed, machined, thermoformed and cemented and is ultraviolet light absorbing.

Applications

Because of its unique properties, ASTARIGLAS® GP is ideal for a wide range of applications, such as:

- Retail store displays
- Security glazing
- Industrial and residential glazing
- Luminaries
- Aquariums
- Decorative paneling
- Spectator shielding
- Skylights
- Signs







PT. Astari Niagara Internasional

Dipo Tower, 10th Floor,
Jl. Jend. Gatot Subroto Kav. 50-52
Jakarta 10260, Indonesia.
Phone. +62 21 3006 0080 / 81
Fax. +62 21 3006 0082
Email. info@id.astariglobal.com

Astari Americas Inc.

Email. info@us.astariglobal.com

Astari Europe GmbH

Email. info@de.astariglobal.com

Astari Pacific Pty. Ltd.

Email. info@au.astariglobal.com

® = registered trademark. ASTARIGLAS® is a registered trademark of PT. Astari Niagara Internasional, Jakarta, Indonesia.
Certified to ISO 9001

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.