



The conscious environmental tick of approval

GRIMCO® acrylic sheet is a recent proprietary development in specialty acrylics, utilizing innovative technology by incorporating both recycled & virgin raw materials, into a premium quality finished product.

GRIMCO® acrylic are leaders in the innovation of acrylic sheet products, with our production management identifying a recycling process, enabling the reproduction of a sustainable acrylic sheet product.

GRIMCO® acrylic invested in the further research to create a proprietary process of regeneration of acrylic sheet waste, into a high performing cast acrylic sheet product.

GRIMCO® is enabling the new generation of sustainable acrylic production, creating an environmental choice with the goal of assisting in the protection of our planet. The GRIMCO® acrylic proprietary process, simply enables scraps/waste to be chemically altered, further enabling the initial product to be regenerated back into a new sustainable finished material. We believe that the use of waste into society is an important process in addressing a sustainable environmental future. Currently plastic products are widely regarded as throw away items, where GRIMCO® acrylic enables:

- The GRIMCO® acrylic manufacturing process, substantially reduces our environmental impact.
- GRIMCO® acrylic contains no hazardous substances such as heavy metals, hormone type products (bisphenol A) & no CFC or PCB like products.
- Utilisation of scrap/waste, giving a new life to a finished product.
- Contribution to the protection of the environment.
- Free of VOC & HFC.
- Reduced consumption of new raw materials.
- Reduced demand for landfill.

GRIMCO® acrylic has excellent optical clarity, good mechanical properties, exceptional surface finish, is simple to fabricate (cut, bend & polish), superb ink & paint adhesion, whilst virtually eliminating the current

environmental issue, by utilizing waste & scrap. GRIMCO® acrylic has minimal effect on the environment, reducing our generations environmental footprint, making it the logical choice in acrylic POP/display fabrication.

GRIMCO® acrylic production is with a unique process which reduces the consumptions of water & energy, generating less CO2 emissions, further reducing our carbon footprint.

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GRIMCO® acrylic is the perfect solution for diverse applications including:

- ✓ Picture framing
- ✓ POP Displays
- ✓ Exhibit displays
- ✓ Display cases
- ✓ Poster advertising protection
- ✓ Signage

Grades available:

- GRIMCO® acrylic - Gloss.
- GRIMCO® acrylic Velvet – satin/Frost finish 1 & 2 sides.
- GRIMCO® acrylic Ezshape+ - Chemical resistant & thermoformable.

Specialty Properties are:

- Specially formulated proprietary technology.
- Excellent light transmission & optical clarity.
- Perfect cast acrylic finish (no manufacturing lines & inclusions).
- Good mechanical properties - shatter resistant.
- 100% recyclable product.



Mechanical engineers, construction co., transport producers & POP / exhibition displays, all need to meet rising environmental demands. Protective equipment has to offer durability, safety & security, whilst also providing an appearance that harmonizes with the application. That is why these designers often choose GRIMCO® acrylic sheet, for machine guards, transportation & construction glazing, ice-rink barriers, or in store security applications.

GRIMCO® acrylic is one of the leading RMMA quality & versatile plastic substrate. It meets with general wear & tear & is easy to machine & fabricate. GRIMCO® acrylic applications are segments such as POP, display & signage, furniture, exhibitions & transport, domestic applications, with also commercial architecture & construction, industrial applications, and a wide range of lighting applications. The quality and distribution of light & energy efficiency with an LED light source are key requirements in modern lighting systems.

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GRIMCO® acrylic is the ideal substrate to meet these requirements. Its properties – unsurpassed transparency & brilliance, surface finishes, ease of thermo-forming, meeting technical & design requirements of lighting engineers & illuminated advertising/POP signage, lighting manufacturers & architects.

Due to the manufacturing process, GRIMCO® acrylic contain no plasticizers, heavy metal salts or halogens, & no levels of chlorine.

GRIMCO® acrylic basic chemical structures contain no nitrogen compounds or bisphenol A. GRIMCO® acrylic will normally emit no toxic or cancerogenic, mutagenic, teratogenic, even in the application of above the service & distortion temperature (approx. one hundred degrees Celsius).

Due to the chemical chain structure, GRIMCO® acrylic does not react with water & can be safely used in aquatic applications.

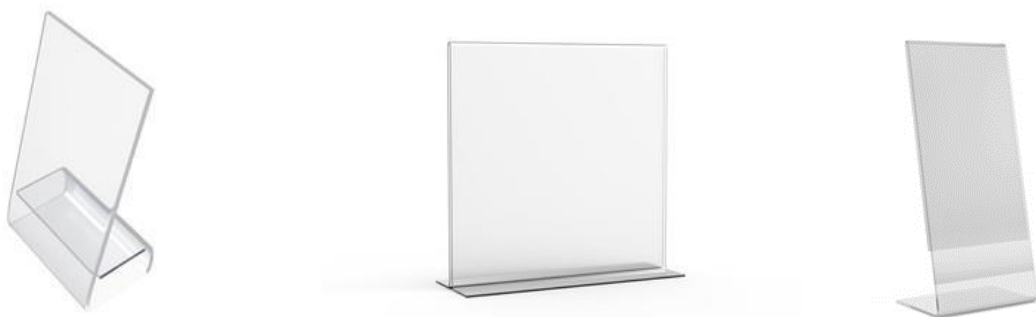
GRIMCO® acrylic solid sheets are extremely resistant to standard mechanical methods during installation & in application. GRIMCO® acrylic sheets offer eleven times the impact strength of conventional domestic glass.

Std. Dimensions/panel sizes: (Cut to Size Panels also available)

- 1830mm x 1220mm
- 2440mm x 1220mm
- 3050mm x 2050mm

Standard thicknesses: 2.8mm – 10mm (other gauges also available on request).

Masking: Pressure Sensitive PE thermoformable film.



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PROPERTIES	TEST METHOD	GreenTick™	UNIT OF MEASURE
PHYSICAL			
Nominal Thickness	-	0.236" (6.0mm)	in (mm)
Specific Gravity	ASTM D792	1.19	-
Rockwell Hardness	ASTM D785	95	M scale
Poisson's Ratio	N/A	0.35	-
OPTICAL			
Refractive Index @ 73 °F / 22 °C	ASTM D542	1.49	-
Luminous Transmittance	ASTM D1003	91	%
Haze	ASTM D1003	<2.0	%
MECHANICAL			
Tensile Strength Max.	ASTM D683	10,000	psi
Tensile Strength Yield	ASTM D683	10,000	psi
Tensile Elongation	ASTM D683	2.7	%
Tensile Modulus Elasticity	ASTM D683	450,000	psi
Flexural Strength Max	ASTM D790	14,000	psi
Flexural Modulus Elasticity	ASTM D790	450,000	psi
Notched Izod Impact @ 73 °F / 22 °C	ASTM D256	0.3	ft-lb/in
Un-Notched Charpy @ 73 °F / 22 °C	ASTM D256	7	ft-lb/0.5"x1" section
THERMAL			
Deflection Temperature under Flexural Load @264 psi - not annealed	ASTM D648	200	°F
Coefficient of Thermal Expansion @ 60 °F / 15 °C	ASTM E831	3.5	1n/in/°Fx10
Coefficient of Thermal Conductivity	ASTM C177	1.3	BTU/(hr)(ft)(°F/in)
U-Value (summer gain, winter-loss)	N/A	0.89-0.96	BTU/(hr)(ft)(°F/in)
Specific Heat Capacity @ 77 °F / 25 °C	N/A	0.35	BTU/(lb°F)
Maximum Recommended Continuous Service Temperature	N/A	170-190 (76 - 88)	°F / °C
Recommended Thermoforming Temperature	N/A	275-350 (135 - 176)	°F/ °C
CRAZE RESISTANCE			
Constant Stress Craze Resistance IPA	Mod ARTC Method Mil P6997	1,300	psi
Constant Stress Craze Resistance Aromatic/Alcohol beln	Mod ARTC Method Mil P6997	1,200	psi
FLAMMABILITY AND SPECIFICATION COMPLIANCE			
Horizontal Burn Rat	ASTM D635	1.1	in/min
Smoke Density	ASTM D2843	1.2	%
Self Ignition Temperature	ASTM D1929	860 / 455	°F / °C
Surface Burning Characteristics - Flame Spread	CAN/ULC S102.2-07 File R16786	110 (0.125"-0.250")	-
Surface Burning Characteristics - Smoke Developed	CAN/ULC S102.2-07 File R16786	>500 (0.125"-0.250")	-
Plastics Components QMFZ2.E39437 - Flammability Classification	UL94	94HB (≤0.060")	-
Plastics Components QMFZ2.E39437 - Outdoor Suitability	UL746C	060" colorless) f2 (≤0.06	-
International Building Code	IBC 2606.4	CC2 (0.080"-0.354")	-
American National Standard for Safety Glazing	ANSI Z97.1	PASS (≤0.080")	-
FMVSS205 - Federal Motor Vehicle Safety Glazing	ANSI Z26.1	AS-5 AS-6 AS-7	-
FAA (FAR) Section 25.853	Part 1 Para a1iv Proc b5 15 se	-	-
Standard Specification for PMMA Acrylic Plastic Sheet	ASTM D4802	Category B-1 Finish 1	-

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