

SPECIALTY ACRYLICS
PREMIUM CONTINUOUS CAST
FOR BUILDING AND CONSTRUCTION



ACRYCLEAR™

ARISTECH SURFACES LLC IS A LEADING MANUFACTURER AND DISTRIBUTOR OF ACRYLIC SHEETS USED IN A WIDE RANGE OF APPLICATIONS: PARTITIONS, SIGNAGE, GLAZING, LIGHTING, SHOPFITTING, DISPLAY AND GENERAL FABRICATION.

With 50 years of experience, our U.S. based company with headquarters in Florence, KY, draws on its expertise to produce reliable, top-quality products.

Inventories of our specialty acrylic sheet products are maintained at our Florence, KY production facility along with our global network worldwide. Our stocked inventories allow us to provide combination orders for all grades of our acrylic sheet at one time.



CHARACTERISTICS

THE ACRYCLEAR™ GENERAL PURPOSE ACRYLIC (GPA) LINE OFFERS EXCELLENT LIGHT DIFFUSION, POWERFUL UV RESISTANCE, THE STRENGTH AND COLOR YOU NEED AND THE CUSTOMIZATION YOU WANT. PLUS, THIS DURABLE AND LONG-LASTING CONTINUOUS CAST ACRYLIC DELIVERS IMPROVED SCRATCH RESISTANCE, SUPERIOR CHEMICAL RESISTANCE AND IS UNIQUELY PREPARED TO WEATHER EXTREME CONDITIONS INDOORS OR OUTSIDE.

Made by the continuous casting process and available in a wide range of standard and customizable colors, sizes, thicknesses and packaging options, AcryClear™ is made to meet your specific needs.



EXCEPTIONALLY CUSTOMIZABLE

AcryClear™ is available in a wide range of colors, tints, translucencies to full opaque in both sheets and reels. Aristech Surfaces manufactures both AcryClear™ and its own color formulations in-house, so if you can't find the hue or tone you're looking for, we can match to virtually any color for your project. Add to that our unique aesthetic finishes including pearlescents, metallics, granite effects and marbling and you should find the perfect acrylic solution whatever your application.

IMPRESSIVELY VERSATILE

AcryClear™ can be formed, printed, routed, engraved, cemented, flame polished and saw or laser cut into any shape or size. This means exceptional design freedom for every project. The continuous cast method of production provides the sheet a higher molecular weight and affords superior qualities not only in general fabrication, but in rigidity, warping and shrinkage compared to other sheet products.

BEST & BRIGHTEST

AcryClear™ offers the very best light transmission at 93% compared to any other thermoplastic, even better than glass. The inherent properties of our continuous cast sheet give you confidence that this performance will not diminish over time. Its superior surface finish make it the optimum choice for demanding applications where light transmission and optical clarity are required including glazing, display cases, edge illumination for lighting and many more.

UV & WEATHER RESISTANT

The optimized properties of continuous cast AcryClear™ offer superior performance in UV and weather resistance in any outdoor applications, supported by our 10 year warranty. In clear, it will not yellow, colors will not fade and the sheet will not become brittle, unlike most other forms of acrylic or thermoplastic sheets products.

IMPACT RESISTANT

AcryClear™ acrylic is impressively impact-resistant, especially when being compared to glass. In fact, AcryClear™ acrylic sheets have 10 – 17x greater impact resistance than glass in equivalent thickness, and in thicker calipers can offer superior rigidity and optical clarity whilst competing on impact performance compared to other thermoplastic sheets.



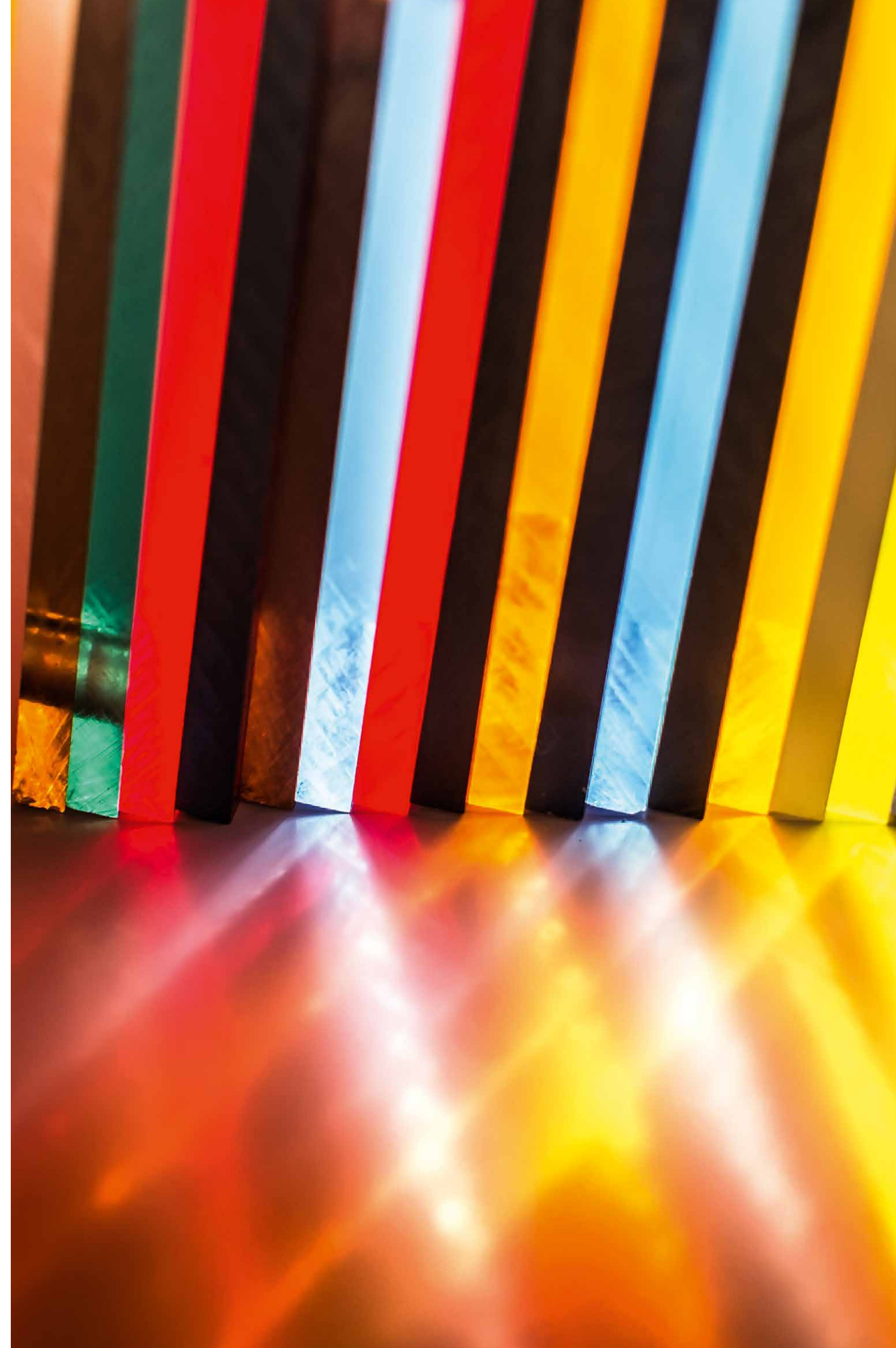


COLORS

Unlimited colors of AcryClear™ allow you incomparable design liberty. The possibilities include:

- Custom tints and opacities for light transmission and backlight applications
- Custom color aesthetics including vibrancy, metallics and varying translucencies
- Custom color-matching capabilities to seamlessly add to your existing décor

Our color laboratory is staffed by experienced personnel and is able to provide quality standard and custom colors to meet your specifications. As your best single source for premium acrylic sheet product, Aristech Surfaces encourages you to present us with your most challenging problem or demanding application, and we'll solve it together.





SIGNAGE

AcryClear™ acrylic is the clear choice for signs that last. Thanks to our color-matching and color customization process, you now have a plethora of selections right at your fingertips. Plus, AcryClear™ is incredibly UV resistant and weather resistant to both the sun and extreme heat, circumventing damage in indoor or outdoor environments.

GLAZING

Choose AcryClear™ for glazing applications when you want to make your acrylic products even stronger. The optical clarity and exceptional light transmittance of this acrylic sheet make it the material of choice for your glazing needs.

SKYLIGHTS

The extreme impact resistance that AcryClear™ continuous cast acrylic possesses is perfect for commercial use skylights. The thermoforming ability of this product is malleable flexible enough for your unique skylight needs, while the clarity and non-yellowing characteristics ensure your skylights maintain a clear and bright, glass-like look for years to come.

... FLIGHT SIMULATOR SCREENS, CABINETRY INSET, OFFICE AND DIRECTIONAL SIGNAGE, MOTORCYCLE WINDSHIELDS AND MORE.



APPLICATIONS

ACRYCLEAR™ ACRYLIC IS IDEAL FOR SIGNAGE, SKYLIGHTS, GLAZING AND GENERAL FABRICATION APPLICATIONS. IT IS THE PERFECT CHOICE TO MAKE WHEN THE COST OF LABOR AND MATERIALS IS YOUR MAJOR CONSIDERATION, BECAUSE WE CAN FIND THE PRODUCT TO SUIT ALL YOUR NEEDS.

PARTITIONS

With its impact resistance, hygienic properties and exceptionally clear opacity, AcryClear™ can do so much to help communities worldwide. AcryClear™ protective screens offer separation in the education, healthcare, commercial and retail spaces and are customizable to fit your needs. Our partition options range from sneeze guard forward-facing options, to free-standing or hanging screen applications, making it an essential material for a range of market segments.



MANUFACTURING CAPABILITIES



ARISTECH SURFACES IS AN INDUSTRY LEADER IN CONTINUOUS CAST ACRYLIC - SUPPLIED IN BOTH STANDARD SIZE SHEET AND CUSTOMIZABLE ROLLS. OUR CAPABILITY TO PRODUCE ANY VARIETY OF SHEET UP TO 108 IN. WIDE AND AS LONG AS A REEL ALLOWS US TO TAILOR OUR PRODUCT TO YOUR EXACT NEEDS. CHOOSING ACRYCLEAR™ MEANS CHOOSING:

- Four of the world's continuous cast machines
- Custom sizing including varying size, calipers and continuous cast reels up to 108 inches wide
- In-process quality checks for the best acrylic on the market
- A USA-made product created with world-class research & development

Because we use the continuous cast method to create AcryClear™ acrylic, Aristech Surfaces can better provide you with larger sheets and reels, customizable colors or tints and cut-to-size opportunities to save on your fabrication and shipping costs. We get the product to you, easier. That's the clear choice when choosing AcryClear™.

UNIFORMITY

AcryClear™ acrylic sheets are produced and maintain a thickness of +/-10% or 0.015 in. (whichever is greater) to ensure critical uniformity. This reduces the rate of rejections due to breakage, thinning out or variances in light transmission.



ACRYCLEAR™ CUSTOM SIZES

THE FOOTBALL-FIELD-LENGTH CASTING MACHINES AT ARISTECH SURFACES ARE CAPABLE OF PRODUCING ANY VARIETY OF ACRYCLEAR™ UP TO 108 IN. / 274 CM. WIDE, AND 3500+ SHEETS PER DAY. THIS FLEXIBILITY ALLOWS MANUFACTURERS TO MINIMIZE THEIR SCRAP COSTS BY TAILORING THEIR SHEET SIZES TO THEIR EXACT NEEDS.

AcryClear™ general-purpose acrylic is available in a wide variety of standard and customizable colors in the following sizes:

- 48 in. x 96 in. Standard Sheet Size Available
- 0.118 in., 0.177 in., 0.236 in. Standard Thicknesses Available
- Up to 0.472 in. Thickness, Available upon request

Or, customize your AcryClear™ sheet to the exact size to suit your needs while minimizing labor and scrap costs.



PHYSICAL PROPERTIES

AcryClear™ is a specialty continuous cast acrylic sheet derived from a unique formulation which is easily fabricated and solvent cementable. The following physical properties were determined using

0.125 in. (3.17 mm) thickness clear. Properties may vary somewhat on other thicknesses and/or colors (translucent, transparent or opaque).

PROPERTY	TYPICAL VALUES	UNITS	TEST METHOD
General			
Thickness	0.125 (3.17)	Inch (mm)	—
Specific Gravity	1.19	—	ASTM D-792
Optical (Unaged)			
Refractive Index	1.49	—	ASTM D-542
Light Transmission	93.0	%	ASTM D-1003
Haze	0.8	%	ASTM D-1003
Ultraviolet Light Transmission (250-370 nanometers)	<1.0	%	UV Spectrophotometer
Optical (Aged)			
Light Transmission	93.0	%	ASTM D-1003
Haze	<2.0	%	ASTM D-1003
Yellowness Index	+0.50	YI	ASTM E-313
Mechanical			
Tensile Strength	10,000 (68.9)	psi (MPa)	ASTM D-638
Tensile Modulus	460,000 (3,171)	psi (MPa)	ASTM D-638
Tensile Elongation	5.0	%	ASTM D-638
Flexural Strength	16,000 (110)	psi (MPa)	ASTM D-790
Flexural Modulus	450,000 (3,102)	psi (MPa)	ASTM D-790
Notched Izod Impact	0.4 (2.1)	ft-lb/in.of notch (kJ/m²)	ASTM D-256 (Method A)
Charpy Impact (Un-notched)	5.7 (29.9)	ft.-lb/in.(kJ/m²)	ASTM D-6110
Falling Dart Impact	4.0 (5.4)	ft.-lbs. (J)	FTMS 406-M-1074
Rockwell Hardness (M)	90-100	—	ASTM D-785
Barcol Hardness	48-52	—	ASTM D-2583
Thermal			
Hot Forming Temperature	320-380 (160-193)	°F (°C)	Aristech Method
DTUL @264 psi (1.82 MPa)	190 (88)	°F (°C)	ASTM D-648
Thermal Conductivity	1.4 (20.2)	Btu/(h-ft²-°F/in) (W/(m²-K/cm))	Cinco-Fitch
Specific Heat	0.35 (1465)	Btu/(lb-°F) (J/(kg-K))	ASTM C-351
Coefficient of Linear Thermal Expansion	.000041 (.000074)	in./in./°F (cm/cm/°C)	ASTM D-696
Thermal Stability 30 min.@ 356°F (180°C)	No degradation	—	ASTM D-4802
Flammability	94 HB	—	UL Test # 94
Miscellaneous			
Water Absorption	0.35	%	ASTM D-570
Odor	None	—	—
Taste	None	—	—

For cautions and other information relating to handling of an exposure to this product, please see the applicable material safety data sheet published by Aristech Surfaces.



These instructions are based upon experience with Aristech Surfaces products only. Experience with products of other manufacturers is specifically disclaimed. For most uses, check for local code approval and test for application suitability. These procedures, techniques and suggested materials should only be used by personnel who are properly trained in the safe handling of the chemicals and the equipment with which they are working. Avoid aromatic solvents, clean with mild soap and water, avoid abrasives. These suggestions are based on information believed to be reliable, however, Aristech Surfaces makes no warranty, guarantee, or representation and assumes no obligations or liability as to the absolute correctness or sufficiency of any of the foregoing, or that additional or other measures may not be required under particular conditions or circumstances.



For 50 years, Aristech Surfaces has produced and marketed a broad range of surface and design materials to provide quality, cost-conscious and high-end aesthetic solutions sought by OEMs, architects, designers and fabricators for industries around the globe. Aristech Surfaces corporate headquarters is located in Florence, KY and has multiple manufacturing facilities, a worldwide distribution network and global sales force to service the needs of customers.

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