

# **POLYCAST**® **EX-CELL**™

ENHANCED CELL CAST ACRYLIC



## **TOUGH & FLEXIBLE**

Polycast EX-Cell™ Modified Cell-Cast Acrylic sheet is more flexible and forgiving than standard acrylic sheet. It has been designed for reduced chipping during routing and fabrication and maintains the ability to relieve stress points during drilling, tapping and cutting. This enhanced pliability means a more fabrication friendly acrylic sheet, reduced cracking and extended in-service durability.



**POLYCAST**®  
CELL CAST ACRYLIC



**Average values for POLYCAST<sup>®</sup> EX-CELL<sup>™</sup> Modified Acrylic Sheet**  
ENHANCED CELL CAST ACRYLIC

PROPERTY	UNITS	Test Method	PolyOne Polycast EX-Cell	Standard Acrylic
Specific Gravity		ASTM D 792	1.15	1.19
Tensile Strength	psi	ASTM D 638	8,000	10,000
Elongation	%	ASTM D 638	approx. 15%	3% - 5%
Tensile Modulus of Elasticity	psi	ASTM D 638	350,000	450,000
Flexural Strength, Rupture	psi	ASTM D 790	13,000	15,000
Flex Modulus of Elasticity	psi	ASTM D 790	350,000	450,000
Compressive Strength				
Compressive Yield Strength	psi	ASTM D 695	12,500	15,630
Compressive Modulus of Elasticity	psi	ASTM D 695	246,000	289,700
Impact Strength				
Izod, notched	ft.-lb./inch	ASTM D 256	0.4	0.3
Izod, un-notched	ft.-lb./inch	ASTM D 256	7.4	4.4
Rockwell Hardness		ASTM D 785	81	100
Barcol Hardness		ASTM D 2583	30 - 35	50
Residual Shrinkage/Internal Strain	%	ASTM D 4802	1.6	2.1
HDT	degrees F	ASTM D 648	185	221
Coefficient of Linear Thermal Expansion	inch/inch/deg F	68 to 158 deg F	0.00005	0.00004
Water Absorption	%	ASTM D 570, 24hr	0.10	0.25
Burn Rate	inch/min.	ASTM D 635	1.5	1.4

PolyOne Polycast's EX-Cell, an enhanced cell cast acrylic material, is being targeted for both the marine and furniture & fixture industries. The material's formability, machinability, ductility, and ease of processing make it a logical material choice for boat hatches and doors, hinged lids, point-of-purchase displays, and many other applications.



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Polycast is the world's largest manufacturer of specialty cell cast acrylic sheet, S-A-R Super Abrasion Resistant acrylic sheet and the leading supplier of aircraft transparencies, marine boat doors and hatches, tanning bed shields, plastic optical components, biomedical components, furniture, aquariums and transparent ballistic enclosures. Made in the USA for over 30 years, Polycast takes great pride in its products and its commitment to quality, delivery and service. Polycast is a proven leader and is recognized the world over for its dedication to customer service and technical assistance. Our experienced sales and technical staff are always available to field any question that may arise. We are constantly developing new products and services to help you satisfy your business needs. We would be delighted to help you with your requirements.

For more information on **POLYCAST EX-CELL<sup>™</sup>**, or any other products manufactured by Polycast, contact us by phone, e-mail, or visit our website.