

# Polycast Poly 2000<sup>™</sup>

Stretched Acrylic Sheet (MIL P 25690)



## Industry Advantages

- Largest sheet yields lower unit costs
- Flexibility, Consistency and Manufacturing Performance
- Parts cut to your size and shape configurations
- We offer cradle to grave "capabilities"
- Quick deliveries due to fully monitored process
- Control from cell casting to stretching
- Ability to maintain inventory levels exacted to your specifications
- Superior Optical Quality
- Superior Customer Service
- Technical Expertise & Support of Customers

*From design and specification to fabrication, installation, and care, we take an active role in the support and promotion of our clients and their concerns.*

*Polycast is the world's largest manufacturer of specialty cell cast acrylic sheet and the leading supplier of aircraft transparencies, 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 questions that may arise.*

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Property	Requirement	Typical Value
<b>Angular Deviation*:</b>	7 minutes (more than 2" from edge)	1-3 min.
<b>Optical Distortion*:</b>	< 14 minute of arc over any 6"	3 min./6"
<b>Luminous Transmittance:</b>		
1) Before Weathering:	0.060" - 0.220": 91%	92.0
	0.221" - 0.375": 90%	91.0
	0.376" - 0.675": 89%	90.0
	> .675": 88%	89.0
2) After Weathering:	0.060" - 0.220": 89%	89.0
	0.221" - 0.375": 88%	90.0
	0.376" - 0.675": 87%	88.0
	> .675": 86%	87.0
<b>Haze*:</b>		
1) Before Weathering:	3% max.	< 1.5
2) After Weathering:	4% max.	< 3.0
<b>Long Term Water Absorption:</b> (Class 2)	≤ 2.90%	2.79-2.85%
<b>Crack Propagation:</b>		
1) Received @ STD Conditions	Individual value: 2,300 lbs/in <sup>3/2</sup>	2,600-3,000
	Average value: 2,700 lbs/in <sup>3/2</sup>	2,700-3,100
2) As Received @ -17.8C	Individual value: 1,150 lbs/in <sup>3/2</sup>	1,200-1,500
	Average value: 1,250 lbs/in <sup>3/2</sup>	1,300-1,600
3) After Weathering @ STD Conditions	Individual value: 2,100 lbs/in <sup>3/2</sup>	2,500
	Average value: 2,300 lbs/in <sup>3/2</sup>	3,000
<b>Thermal Relaxation:</b>		
1) @ 110C	10.0% max.	1.6-5.0%
2) @ 145C	37.5% min.	40.0-50.0%
<b>Tensile Strength:</b>	Individual value: 10,000 psi	11,300-12,700
	Average value: 10,500 psi	11,300-12,900
<b>Shear Strength:</b>	3,000 psi	3,200-4,200
<b>Craze Resistance:</b>		
1) Dry IPA		
a) Class 1	3,000 psi	3,700-no craze
b) Class 2	3,000 psi	4,300-no craze
2) Dry Laquer Thinner		
a) Class 1	2,500 psi	3,300-no craze
b) Class 2	2,500 psi	3,400-3,800
3) Wet IPA		
a) Class 1	2,000 psi	2,400-3,000
b) Class 2	2,500 psi	3,100-4,100
4) Wet Laquer Thinner		
a) Class 1	1,750 psi	2,200-3,100
b) Class 2	2,000 psi	2,700-3,300
<b>Dimension Stability:</b>	0.2% max. after natural weathering	0.11

\*Special optical requirements will be considered.

