



**PLEXIGLAS®**  
BY ARKEMA

## Plexiglas® IMPACT Family

ACRYLIC SHEET

Ever wished you could have a Plexiglas® acrylic sheet product that has more impact resistance and toughness compared to standard Plexiglas® MC acrylic sheet? The Plexiglas® IMPACT Family of acrylic sheet products provides this option!

Depending on your application needs, there are four levels of toughness and impact resistance to choose from. Plexiglas® T acrylic sheet contains the lowest level of impact modifier. As the level of impact modifier is increased, Plexiglas® T2 and Plexiglas® T3 are offered all the way up to Plexiglas® DR acrylic sheet, which has the highest level of impact modifier throughout the sheet.

The Plexiglas® IMPACT Family of products combines the beauty of Plexiglas® MC with added toughness. You no longer have to sacrifice clarity, design flexibility, or fabrication techniques to get the performance you desire.

- Improved Toughness
- Increased Chemical Resistance
- High Optical Clarity
- Proven Weatherability
- Can be easily fabricated and thermoformed
- Thickness range from 0.080" – 0.236"
- Colors available upon request

### SHEET SIZE

48" x 96"

60" x 96"

72" x 96"

Custom sizes available  
upon request

# Plexiglas® IMPACT Family

## ACRYLIC SHEET

### TYPICAL STANDARD PROPERTIES

PROPERTIES	TEST METHOD	UNIT	Plexiglas® T Acrylic Sheet	Plexiglas® T2 Acrylic Sheet	Plexiglas® T3 Acrylic Sheet	Plexiglas® DR Acrylic Sheet
<b>PHYSICAL</b>						
Nominal Thickness for data unless otherwise noted		in	0.177"	0.177"	0.177"	0.177"
Specific Gravity	ASTM D-792	N/A	1.177	1.174	1.166	1.160
Rockwell Hardness	ASTM D-785	M scale	84	78	57	39
<b>OPTICAL</b>						
Luminous Transmittance <sup>1</sup>	ASTM D-1003	%	92.0	91.0	91.0	90.0
Haze <sup>1</sup>	ASTM D-1003	%	< 1.5	< 2.0	< 2.0	< 2.5
<b>MECHANICAL</b>						
Tensile Strength, Maximum	ASTM D-638	psi	7600	6800	5900	5400
Tensile Strength, Yield	ASTM D-638	psi	8600	7900	6500	5600
Tensile Elongation, Yield	ASTM D-638	%	4.8	5.0	5.9	7.6
Tensile Modulus of Elasticity	ASTM D-638	psi	405,000	365,000	300,000	250,000
Flexural Strength, Maximum	ASTM D-790	psi	14,300	13,000	11,000	9300
Flexural Modulus of Elasticity	ASTM D-790	psi	400,000	360,000	310,000	260,000
Notched Izod Impact @ 73°F (23°C)	ASTM D-256	ft-lb / in	0.67	0.96	1.23	1.37
Un-notched Charpy @ 73°F (23°C)	ASTM D-6110	ft-lb / in	14.2	20.4	25.0	29.5
<b>THERMAL</b>						
Deflection Temperature under Flexural Load @ 264psi – unannealed <sup>1</sup>	ASTM D-648	°F	184	182	174	167
Deflection Temperature under Flexural Load @ 264psi – annealed <sup>3</sup>	ASTM D-648	°F	210	207	202	198
Coefficient of Linear Thermal Expansion at 86°F	ASTM D-696	in / in / °F x 10 <sup>-5</sup>	4.06	4.09	4.91	5.31
Maximum Recommended Continuous Service Temperature	N/A	°F	155 - 175	150 - 170	145 - 165	135 - 155
Recommended Thermoforming Temperature	N/A	°F	270 - 335	265 - 330	255 - 320	250 - 315
<b>CRAZE RESISTANCE<sup>4</sup></b>						
Constant Stress Craze Resistance, IPA	MIL-PRF-8184F	psi	1750	1800	1850	2600
Constant Stress Craze Resistance, Acetone	MIL-PRF-8184F	psi	600	650	700	1050
<b>FLAMMABILITY<sup>2</sup> &amp; BUILDING CODE COMPLIANCE</b>						
Horizontal Burn Rate <sup>1</sup>	ASTM D-635	in / min	< 1.0	< 1.0	< 1.0	< 1.0
Smoke Density	ASTM D-2843	%	2.1	3.0	5.7	10.5
Self Ignition Temperature	ASTM D-1929	°F	811	799	829	808
Plastics Component – QMFZ2.E39437 Flammability Classification	UL 94	N/A	94HB (≥ 0.060" clear, white ONLY)	94HB (≥ 0.060")	94HB (≥ 0.060" clear, white ONLY)	94HB (≥ 0.060")
Plastics Component – QMFZ2.E39437 Outdoor Suitability	UL 746C	N/A	—	f1 (≥ 0.060" clear) f2 (≥ 0.060" ALL)	f1 (≥ 0.060" clear) f2 (≥ 0.060" White)	f1 (≥ 0.060" clear) f2 (≥ 0.060" White)
International Building Code	IBC 2606.4	N/A	—	CC2 (0.098"-0.354")	—	CC2 (0.080"-0.354")

Data given are average values and should not be used for specification purposes.

1. This property will change with thickness. The value given is for the thickness indicated in the column heading unless otherwise noted.

2. Flammability tests are small scale tests and may not be indicative of how materials will perform in an actual situation.

3. Annealing Cycle: 16 hrs @ 80°C

4. Conditioned for 2 hours at 200°F and then room temperature for 48 hours

Distributed by:



**Piedmont Plastics®**

where solutions take shape

Toll Free: 1.800.277.7898

www.piedmontplastics.com

Plexiglas® acrylic plastic is a combustible thermoplastic. Observe fire precautions appropriate for comparable forms of wood and paper. For building uses, check code approvals. Impact resistance is a factor of thickness. Avoid exposure to heat or aromatic solvents. Clean with soap and water. Avoid abrasives.

The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, Arkema expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement.

See MSDS for Health & Safety Considerations.  
Altuglas® and Plexiglas® are registered trademarks of Arkema.

©2013 Arkema Inc. All rights reserved.