

IN FILM  
FIRST

# SolaTuf®

## Impact Modified Acrylic Film

### Material Description

SolaTuf® Impact Modified Acrylic Film offers seven to ten times the falling dart impact strength of conventional acrylics. SolaTuf also has good chemical resistance, superb weatherability, UV resistance and transparency that far exceeds polycarbonate film. Manufactured to the most stringent quality standards, Rowland Technologies, Inc.'s SolaTuf delivers the clarity and dimensional stability, surface texture and gloss control that is required for the most critical applications.

SolaTuf can also be produced in transparent colors, opaque colors and different resin formulations to meet specific or custom film performance requirements such as UV transmission and light transmission.

These features, along with the ease of processing SolaTuf film, provides the user with maximum design flexibility. Printing, die cutting, hot stamping, thermoforming and insert molding are all but a few of the many processes/applications of this film.

### Applications

SolaTuf films have been used in many applications such as nameplates, decals, graphic panels, thermoformed parts, insert molded parts and coating applications where weatherability, UV resistance, chemical resistance and insert molding process compatibility are essential.

### Material Form and Supply

SolaTuf films are available in standard roll widths of 48 1/2" wide or up to 55" upon request (roll length depends on desired film thickness). Thicknesses range from 0.002" - 0.030". Cut sheets are available in standard 24 1/2" x 48 1/2" sheets or in custom-cut sheets.

### Available Surfaces

SolaTuf is also available in all the same industry standard surface textures as polycarbonate film (gloss/gloss, velvet/matte, velvet/gloss, matte/gloss, suede/matte). Protective masking is applied to all gloss/gloss\* films.

SolaTuf is also available in a variety of custom colors, textures and thicknesses for your special needs.

\*Standard protective masking configuration (0.005" - 0.007" is cling/cling and 0.010" - 0.030" is stick/cling).



# Average Properties of SolaTuf® Impact Modified Acrylic

Physical	Test Method	Units	Typical Values
Specific Gravity	D-792	---	1.16
Rockwell Hardness	D-785	(M Scale)	40
Coefficient of Linear Expansion	D-696	in/in/°F	4.5 x 10 <sup>-5</sup>
Water Absorption, 24 hours	D-570	% max	0.42
Optical			
Light Transmission	D-1003	total white %	91.7
Haze		%	<1.8
Refractive Index N <sub>d</sub>	D-542	---	1.49
Mechanical			
Tensile Strength	D-638	psi	6,500
Tensile Modulus	D-638	psi	255,000
Tensile Elongation @ Break	D-638	%	38
Flexural Strength	D-790	psi	8,890
Flexural Modulus	D-790	psi	260,000
Notched (IZOD) Milled	D-256	ft. lb./in. of notch	1.20
Thermal			
Deflection Temperature Under Load:			
@ 264 psi - Annealed	D-648	°F	176
Vicat Softening Point Unannealed	D-1525	°F	227
Glass Transition Temperature T <sub>g</sub>	D-3418	°F	226
Continuous Service Temperature Range		°F	150-170

PLEASE NOTE: Properties reported here are typical of average lots. Rowland Technologies, Inc. makes no representation that the material in any particular shipment will conform exactly to the value given herein nor is Rowland Technologies, Inc. responsible for the performance of this material for a given application. The user of the material should perform their own testing to determine the suitability of the material for the intended use. Applications depicted herein are not specifications. They are provided as information only.