

# SolaTuf® AC1

## STANDARD IMPACT MODIFIED ACRYLIC FILM

Technical Datasheet  
01/23  
Page 2 of 2

### Typical Properties *(for Clear unless otherwise noted)*

|   | Test Method | Units               | Typical Values         |
|---|-------------|---------------------|------------------------|
| <b>Physical</b>   |             |                     |                        |
| Specific Gravity  | ASTM D-792  | –                   | 1.15                   |
| Water Absorption, 24 hours  | ASTM D-570  | %                   | 0.40                   |
| Rockwell Hardness   | ASTM D-785  | M Scale             | 45                     |
| <b>Optical</b>  |             |                     |                        |
| Refractive Index @ 77° F (25 ° C)                                     | ASTM D-542  | N <sub>b</sub>      | 1.49                   |
| Light Transmission  | ASTM D-1003 | %                   | 90.0                   |
| Haze  | ASTM D-1003 | %                   | < 4.0                  |
| <b>Mechanical</b>   |             |                     |                        |
| Tensile Strength, Break   | ASTM D-638  | psi                 | 5,500                  |
| Tensile Elongation, Break   | ASTM D-638  | %                   | 45                     |
| Tensile Modulus of Elasticity   | ASTM D-638  | psi                 | 270,000                |
| Flexural Strength   | ASTM D-790  | psi                 | 10,300                 |
| Flexural Modulus  | ASTM D-790  | psi                 | 270,000                |
| Notched Izod Impact @ 73° F (23 ° C)                                  | ASTM D-256  | ft-lb / in of notch | 1.10                   |
| <b>Thermal</b>  |             |                     |                        |
| Deflection Temperature<br>under Flexural Load @ 264 psi -<br>annealed | ASTM D-648  | °F                  | 175                    |
| Coefficient of Thermal Expansion                                      | ASTM D-696  | in / in / °F        | 4.5 x 10 <sup>-5</sup> |
| Vicat Softening Temperature   | ASTM D-1525 | °F                  | 208                    |
| Glass Transition Temperature, T <sub>g</sub>                          | ASTM D-3418 | °F                  | 217                    |
| Maximum Continuous Service<br>Temperature                             | —           | °F                  | 145 – 165              |

#### Note

Properties reported here are typical of average lots. Rowland Advanced Polymer Films makes no representation that the material in any particular shipment will conform exactly to the value given herein nor is Rowland Advanced Polymer Films 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.

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



ORAFOL Americas  
Advanced Polymer Films

320 Barnes Road  
Wallingford, CT 06492  
polymer-americas@orafol.com – www.orafol.com