

# Toyolac™ 950 X01 U MABS

## TECHNICAL DATA

### Product Description

Chemical resistant

|                          |                                                                                                                                                                                                                          |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Uses</b>              | <ul style="list-style-type: none"> <li>• Camera Applications</li> <li>• Kitchenware</li> <li>• Toys</li> <li>• Cosmetics</li> <li>• Office Automation Equipment</li> <li>• White Goods &amp; Small Appliances</li> </ul> |
| <b>Appearance</b>        | <ul style="list-style-type: none"> <li>• Clear/Transparent</li> </ul>                                                                                                                                                    |
| <b>Processing Method</b> | <ul style="list-style-type: none"> <li>• Extrusion</li> <li>• Injection Molding</li> <li>• Film Extrusion</li> <li>• Sheet Extrusion</li> </ul>                                                                          |
| <b>ISO Designation</b>   | <ul style="list-style-type: none"> <li>• &gt;MABS&lt;</li> </ul>                                                                                                                                                         |
| <b>Type</b>              | <ul style="list-style-type: none"> <li>• ABS/Transparent</li> </ul>                                                                                                                                                      |

### ASTM & ISO Properties

| Physical                                                 | Nominal Value | Unit              | Test Method     |
|----------------------------------------------------------|---------------|-------------------|-----------------|
| Density (23°C)                                           | 1.09          | g/cm <sup>3</sup> | ISO 1183        |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)                | 18            | g/10 min          | ISO 1133        |
| Molding Shrinkage <sup>1</sup>                           | 0.40 to 0.60  | %                 | Internal Method |
| Mechanical                                               | Nominal Value | Unit              | Test Method     |
| Tensile Strength (23°C)                                  | 50            | MPa               | ISO 527-2       |
| Tensile Strain (Break, 23°C)                             | 14            | %                 | ISO 527-2       |
| Flexural Modulus (23°C)                                  | 2180          | MPa               | ISO 178         |
| Flexural Stress (23°C)                                   | 71            | MPa               | ISO 178         |
| Impact                                                   | Nominal Value | Unit              | Test Method     |
| Charpy Notched Impact Strength (23°C)                    | 14.0          | kJ/m <sup>2</sup> | ISO 179         |
| Hardness                                                 | Nominal Value | Unit              | Test Method     |
| Rockwell Hardness (R-Scale, 23°C)                        | 110           |                   | ISO 2039-2      |
| Thermal                                                  | Nominal Value | Unit              | Test Method     |
| Deflection Temperature Under Load<br>1.8 MPa, Unannealed | 75            | °C                | ISO 75-2/A      |
| Vicat Softening Temperature                              | 80 to 85      | °C                |                 |
| Flammability                                             | Nominal Value | Unit              | Test Method     |
| Flame Rating (1.5 mm)                                    | HB            |                   | UL 94           |
| Optical                                                  | Nominal Value | Unit              | Test Method     |
| Light Transmittance <sup>2</sup> (Total)                 | 86.0          | %                 | ISO 13468       |
| Haze <sup>2</sup>                                        | 3.00          | %                 | ISO 14782       |

### Notes

<sup>1</sup> 23°C/50%RH

<sup>2</sup> 23°C/50%RH, 3mm thickness

Toray Industries, Inc.

