

## Toyolac™ 900 352 U

Toray Industries, Inc. - *Methyl Methacrylate / ABS*

### General Information

#### Product Description

Medium impact

#### General

|                   |                                                                       |                                                 |                                                           |
|-------------------|-----------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------|
| Material Status   | • Commercial: Active                                                  |                                                 |                                                           |
| Availability      | • Asia Pacific                                                        | • Europe                                        | • North America                                           |
| Features          | • High Impact Resistance                                              | • Pleasing Surface Appearance                   |                                                           |
| Uses              | • Automotive Interior Parts<br>• Camera Applications<br>• Cell Phones | • Cosmetics<br>• Fishing Applications<br>• Toys | • White Goods & Small Appliances<br>• Writing Instruments |
| Appearance        | • Clear/Transparent                                                   |                                                 |                                                           |
| Processing Method | • Extrusion<br>• Film Extrusion                                       | • Injection Molding<br>• Sheet Extrusion        |                                                           |
| ISO Designation   | • >MABS<                                                              |                                                 |                                                           |

### Properties <sup>1</sup>

| Physical                                                | Nominal Value | Unit                  | Test Method     |
|---------------------------------------------------------|---------------|-----------------------|-----------------|
| Density (73°F)                                          | 1.08          | 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>2</sup>                          | 0.40 to 0.60  | %                     | Internal Method |
| Mechanical                                              | Nominal Value | Unit                  | Test Method     |
| Tensile Stress (73°F)                                   | 6960          | psi                   | ISO 527-2       |
| Tensile Strain (Break, 73°F)                            | 15            | %                     | ISO 527-2       |
| Flexural Modulus (73°F)                                 | 271000        | psi                   | ISO 178         |
| Flexural Stress (73°F)                                  | 9570          | psi                   | ISO 178         |
| Impact                                                  | Nominal Value | Unit                  | Test Method     |
| Charpy Notched Impact Strength (73°F)                   | 5.7           | ft·lb/in <sup>2</sup> | ISO 179         |
| Hardness                                                | Nominal Value | Unit                  | Test Method     |
| Rockwell Hardness (R-Scale, 73°F)                       | 108           |                       | ISO 2039-2      |
| Thermal                                                 | Nominal Value | Unit                  | Test Method     |
| Deflection Temperature Under Load (264 psi, Unannealed) | 169           | °F                    | ISO 75-2/A      |
| Vicat Softening Temperature                             | 194           | °F                    |                 |
| Flammability                                            | Nominal Value | Unit                  | Test Method     |
| Flame Rating (0.05 in)                                  | HB            |                       | UL 94           |
| Optical                                                 | Nominal Value | Unit                  | Test Method     |
| Light Transmittance <sup>3</sup> (Total)                | 86.0          | %                     | ISO 13468       |
| Haze <sup>3</sup>                                       | 2.00          | %                     | ISO 14782       |

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 23°C/50%RH

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

