Toyolac™ 950 X01
MABS

TECHNICAL DATA

Product Description

Chemical resistant

Uses	• Camera Applications • Cosmetics	• Kitchenware • Office Automation Equipment	• Toys • White Goods & Small Appliances
Appearance	• Clear/Transparent		
Processing Method	• Extrusion • Film Extrusion	• Injection Molding • Sheet Extrusion	
ISO Designation	• >MABS<		
Type	• ABS/Transparent		

ASTM & ISO Properties

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.09	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	18	g/10 min	ISO 1133
Molding Shrinkage [1]	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/m²	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			ISO 75-2/A
1.8 MPa, Unannealed	75	°C	
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 [2] (Total)	86.0	%	ISO 13468
Haze [2]	3.00	%	ISO 14782

Notes

[1] 23°C/50%RH

[2] 23°C/50%RH, 3mm thickness

Remarks for Handling Toyolac™

1. The figures described herein are representative values of natural colors obtained based on the specific test method, and are NOT guaranteed values.
2. For our colored products, the figures described herein will vary depending on the type and amount of pigment, dye, and additive used.
3. The information contained herein is currently information we can reasonably obtain. The information may be revised without notice.
4. The information contained herein, including but not limited to application examples, does NOT represent, warrant or guarantee the quality or safety of your products. When using our products for your or third party's products, in consideration of various relevant laws and regulations, industrial property rights, product standards, self-regulatory standards, etc., please conduct product test etc. and confirm the quality or safety by yourself.
5. The basis that show the combustion resistance described herein is only the evaluation result in the test performed on the test piece prepared by the procedure in accordance with each specific standard. It can NOT be applied to the risk assessment in an actual fire. Note: For UL certification values, please refer to the Yellow card issued by UL (File No. E41797).
6. When using with medical devices, food packages, safety instruments or toys for infant, and so on, consult us about the concrete application and usage beforehand by all means. Do NOT use our products for any medical internal implantation.
7. Regarding export of our products and exports of products incorporating our products, please comply with relevant laws and regulations such as foreign exchange and foreign trade laws.
8. Under the chemical substance management system of each country, the chemical substance used in our products is regulated, and it may be necessary to apply separately or it may not be possible to import or export. If you are an exporter or importer of our products, please contact us for regulatory compliance in your country.
9. Refer to Safety Data Sheet for this our product before use.
10. We make NO representation, warranty or guarantee whether expressed or implied, in respect of fitness for a particular purpose and safety of our products for your products. You will be responsible for ascertaining the suitability of our products for your purpose and safety.
11. Use of any recycled material in the process is limited to a blending ratio of 25 percent or less by weight if UL746D is applied. Some materials of certain grades have been registered as fit for blending by 25 percent by weight or more.