



# **MABS TR551**

**Injection Molding** 

### **Description**

### **Application**

High Transparency, High Rigidity, High Hardness

**Electric&Electronic Products** 

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.13
Melt Flow Rate	220℃/10kg	ASTM D1238	g/10min	8
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm <sup>2</sup>	580
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	
@ Break	50mm/min		%	30
Flexural Strenghth, 3.2mm	15mm/min	ASTM D790	kg/cm <sup>2</sup>	920
Flexural Modulus, 3.2mm	15mm/min	ASTM D790	kg/cm <sup>2</sup>	26,000
IZOD Impact Strehgth, 6.4mm		ASTM D256		
(Notched)	<b>23</b> ℃		kg·cm/cm	13
IZOD Impact Strehgth, 3.2mm		ASTM D256		
(Notched)	<b>23</b> ℃		kg·cm/cm	13
Rockwell Hardness	R-Scale	ASTM D785	-	116
Thermal				
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		${\mathbb C}$	86
Optical				
Haze		ASTM D1003	%	1.9
Transparency		ASTM D1003	%	90

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.

Updated: 1-Jul-14

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Values given should not be interpreted as specification and not be used for part or tool design.

All properties, except melt flow rate are measured on injection molulded specimens and after 48 hours storage at  $23\,^\circ\!\!\mathrm{C}$ , 50% relative humidty.





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#### Processing Guide(Injection Molding)

Processi	ng Parameters	Unit	Value
Drying Temperature		${\mathbb C}$	80
Drying Time		hrs	2 ~ 4
Minimum Moisture Content		%	0.01
Melt Temperature		${\mathbb C}$	210 ~ 240
Cylinder Temperature	Rear	°C	190 ~ 210
	Middle	$^{\circ}$ C	200 ~ 220
	Front	$^{\circ}$ C	210 ~ 230
Nozzle Temperature		$^{\circ}$	210 ~ 240
Mold Temperature		$^{\circ}$	40 ~ 70
Back Pressure		kg/cm <sup>2</sup>	300 ~ 600
Screw Speed		rpm	under 80

Note) Back Pressure & Screw Speed are only mentioned as general guidelines.

These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.

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