

# MABS TR551

## Injection Molding

### Description

High Transparency, High Rigidity, High Hardness

### Application

Electric&Electronic Products

Properties	Test Condition	Test Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity		ASTM D792	-	1.12
Melt Flow Rate	220℃/10kg	ASTM D1238	g/10min	8
<b>Mechanical</b>				
Tensile Strength, 3.2mm @ Yield	50mm/min	ASTM D638	kg/cm <sup>2</sup>	580
Tensile Elongation, 3.2mm @ Break	50mm/min	ASTM D638	%	20
Flexural Strength, 3.2mm	15mm/min	ASTM D790	kg/cm <sup>2</sup>	940
Flexural Modulus, 3.2mm	15mm/min	ASTM D790	kg/cm <sup>2</sup>	28,000
IZOD Impact Strength, 6.4mm (Notched)	23℃	ASTM D256	kg·cm/cm	12
IZOD Impact Strength, 3.2mm (Notched)	23℃	ASTM D256	kg·cm/cm	13
Rockwell Hardness	R-Scale	ASTM D785	-	117
<b>Thermal</b>				
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg	ASTM D648	℃	87
<b>Optical</b>				
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.

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 moulded specimens and after 48 hours storage at 23℃, 50% relative humidity.

Updated : 21-Jun-17

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### Processing Guide(Injection Molding)

Processing Parameters	Unit	Value	
Drying Temperature	℃	80	
Drying Time	hrs	2 ~ 4	
Maximum Moisture Content	%	0.1	
Melt Temperature	℃	210 ~ 240	
Cylinder Temperature	Rear	℃	190 ~ 210
	Middle	℃	200 ~ 220
	Front	℃	210 ~ 230
Nozzle Temperature	℃	210 ~ 240	
Mold Temperature	℃	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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