

# LUPOX TE5011

Injection Molding, PBT+PC

## Description

High Impact, Dimensional Stability

## Application

Automotive(Bumper Back Beam)

Properties	Test Condition	Test Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity		ASTM D792	-	1.22
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.7 ~ 1.0
Melt Flow Rate	250 °C/2.16kg	ASTM D1238	g/10min	-
<b>Mechanical</b>				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm <sup>2</sup>	480
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	-
@ Break	50mm/min		%	> 100
Flexural Strength, 6.4mm	2.5mm/min	ASTM D790	kg/cm <sup>2</sup>	700
Flexural Modulus, 6.4mm	2.5mm/min	ASTM D790	kg/cm <sup>2</sup>	19,000
IZOD Impact Strength, 3.2mm (Notched)		ASTM D256		
	23 °C		kg-cm/cm	NB
	-30 °C		kg-cm/cm	15
<b>Thermal</b>				
Melt Temperature @ Break		ASTM D3418	°C	225
Heat Deflection Temperature, 6.4mm (Unannealed)		ASTM D648		
	18.6kg		°C	90
	4.6kg		°C	110
Flammability		UL94	class	-
Relative Temperature Index		UL 746B		
Electrical			°C	-
Mechanical with Impact			°C	-
Mechanical without Impact			°C	-
<b>Electrical</b>				
Comparative Tracking Index(CTI)	Solution A	IEC 60112	Volts	-
Volume Resistivity	23 °C	ASTM D257	Ohm-cm	-
Arc Resistance	23 °C	ASTM D495	sec	-
Dielectric Strength, 1mm	23 °C	ASTM D149	kV/mm	-

Note) All properties, except melt flow rate are measured on injection moulded specimens and after 48 hours storage at 23 °C, 50% relative humidity.

Updated : 9-Nov-09

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### Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		°C	120
Drying Time		hrs	4 ~ 5
Minimum Moisture Content		%	0.02
Melt Temperature		°C	260 ~ 270
Cylinder Temperature	Rear	°C	250 ~ 260
	Middle	°C	250 ~ 260
	Front	°C	255 ~ 265
Nozzle Temperature		°C	260 ~ 270
Mold Temperature		°C	60 ~ 80
Back Pressure		kg/cm <sup>2</sup>	-
Screw Speed		rpm	-

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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