

## LATIOHM 87 CNT

Partially conductive/dissipative compound based on Polycarbonate (PC).  
Carbon nanotubes.

PHYSICAL PROPERTIES - Typical values	STANDARD	VALUE MEASURE UNITS
Density	ISO 1183	1.20 g/cm <sup>3</sup>
Linear shrinkage at moulding - 0.078 in thickness (at 8,700 psi of cavity pressure)		
Longitudinal	ISO 294-4	0.006 ÷ 0.008 in/in
Transversal	ISO 294-4	0.006 ÷ 0.008 in/in
MECHANICAL PROPERTIES - Typical values		
IZOD impact strength (sample 2.5x0.5x0.125 in)		
Notched, at +73°F	ASTM D256-A	1.62 ft.lb/in
CHARPY impact strength (sample 3.149x0.393x0.157 in)		
Notched, at +73°F	ISO 179-1eA	3.74 ft.lb/in <sup>2</sup>
Tensile elongation (speed 0.196 in/min)		
At yield, 73°F	ISO 527 (1)	5 %
At break, 73°F	ISO 527 (1)	25 %
Tensile strength (speed 0.196 in/min)		
At yield, 73°F	ISO 527 (1)	8,700 psi
At break, 73°F	ISO 527 (1)	7,300 psi
Elastic modulus		
Tensile (speed 0.04 in/min), at 73°F	ISO 527 (1)	363 kpsi

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THERMAL PROPERTIES - Typical values	STANDARD	VALUE MEASURE UNITS
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ELECTRICAL PROPERTIES - Typical values	STANDARD	VALUE MEASURE UNITS
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Electrical resistivity

Surface	ASTM D 257	9E7 ohm
Volume	ASTM D 257	9E7 ohm.cm

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### PREDRYING CONDITIONS

At least 3 hours at 230 ÷ 265°F

These are the suggested conditions to reduce the moisture content to adequate levels. Temperature and drying time are reduced when using vacuum ovens. A particularly wet material may need longer drying time.

### ACTUAL MELT TEMPERATURE

510 ÷ 570°F

The injection machine settings needed to obtain the suggested melt temperature will depend greatly on shot size and machine capacity, as well as other molding parameters such as: injection speed, screw RPM, back pressure, etc. On small machines, running short cycles, it is possible to use higher melt temperatures to improve plastification, fluidity and surface appearance, paying attention to any indication of material degradation.

### MOLD TEMPERATURE

175 ÷ 230°F

The mold temperature suggested above is the actual steel temperature. This can be significantly different from the tool settings, due to the cooling system efficiency and the accuracy of the temperature control on the tool.

### INJECTION SPEED

High

The advisable injection speed greatly depends on cavity geometry and injection machine size. The use of high injection speed can improve the surface appearance, but it can also cause outgassing and burn marks due to overheating through shear stress.

### REGRIND USAGE

The use of regrind is possible, but should be assessed on the basis of the project, moulding parameters, and type of grinding. The effect of using regrind on material properties must be evaluated by the customer on its specific project and process. High percentages of regrind can cause a reduction in viscosity, reducing mechanical properties, reducing mechanical properties

### HOT RUNNER MOULDS

Hot runner moulds can be used when a very tight temperature control is assured.

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### **TO AVOID**

In order to prevent any material degradation, over-dimensioned machines should be avoided.

### **CONTACTS**

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