

## LATILUB 87/28-15T K/20

Self-lubricating product based on Polycarbonate (PC), PTFE. Carbon fibre.

PHYSICAL PROPERTIES	STANDARD	VALUE MEASURE UNITS
<a href="#">Density</a>	ISO 1183	1.37 g/cm <sup>3</sup>
<a href="#">Linear shrinkage at moulding</a>		
Longitudinal (0.078in/8,700psi)	ISO 294-4	0.002 ÷ 0.003 in/in
Transversal (0.078in/8,700psi)	ISO 294-4	0.002 ÷ 0.003 in/in
MECHANICAL PROPERTIES	STANDARD	VALUE MEASURE UNITS
<a href="#">CHARPY impact strength</a>		
Unnotched, at +73°F	ISO 179-1eU	14.02 ft.lb/in <sup>2</sup>
Notched, at +73°F	ISO 179-1eA	3.74 ft.lb/in <sup>2</sup>
<a href="#">Tensile elongation</a>		
At break (0.196 in/min), 73°F	ISO 527 (1)	1.5 %
<a href="#">Tensile strength</a>		
At break (0.196 in/min), 73°F	ISO 527 (1)	18800 psi
<a href="#">Elastic modulus</a>		
Tensile (speed 0.04 in/min), at 73°F	ISO 527 (1)	2220 kpsi

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THERMAL PROPERTIES	STANDARD	VALUE MEASURE UNITS
<b>VICAT - Softening point</b>		
11 lb (heating rate 122°F/h)	ISO 306	302 °F
<b>HDT - Heat Deflection Temperature</b>		
66 psi	ISO 75	293 °F
264 psi	ISO 75	284 °F
TRIBOLOGICAL PROPERTIES	STANDARD	VALUE MEASURE UNITS
<b>Wear Factor</b>	ASTM D 3702	9 10 <sup>-7</sup> mm <sup>3</sup> /(Nm)
<b>Friction Coefficient</b>		
static	ASTM D 1894	0.24
dynamic	ASTM D 1894	0.17

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### MATERIAL - STORAGE

Sealed, undamaged packages has to be kept in dry storage facilities, providing they are also able to protect them from weather and accidental damages.

### HANDLING AND SAFETY

Detailed information about a safe treatment of the material are indicated in the "Material Safety Data Sheet" (MSDS) furnished with the first material supply. The MSDS may be also sent again in case of loss.

### PREDRYING CONDITIONS

At least 3 hours at 230 ÷ 266°F

These are the suggested conditions to reduce the moisture content to adequate levels. Temperature and drying time can be reduced by using vacuum ovens

### ACTUAL MELT TEMPERATURE

527 ÷ 608°F

The injection molding 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

176 ÷ 230°F

The mold temperature suggested above is the actual tool 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

Medium

The advisable injection speed greatly depends on cavity geometry and injection molding 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 used. The effect of using regrind on material properties must be evaluated by the customer on its specific project and process. High percentages of regrind may cause a reduction in viscosity and fibre length, reducing mechanical properties, first resilience.

### HOT RUNNER MOLDS

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

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### TO AVOID

Shut-off nozzles and internally heated hot runners have to be avoided. In order to prevent any material degradation, over-dimensioned machines should be avoided.

### NOTES

**The products mentioned herein are not suitable for applications in contact with foodstuff or for potable water transportation, or for toy manufacturing. The products mentioned herein are not suitable for applications in the pharmaceutical, medical or dental sector.**

### CONTACTS

**LATI Industria Termoplastici S.p.A.**