

## Ensinger Tecanat™ Unfilled Polycarbonate (PC)

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Molded

### Material Notes:

Tenacat™ is typically used in business equipment where gears, rollers, interlam mechanical parts, connectors and relays are required. The automotive industry uses polycarbonate materials for pumps, valves, light bezels and instrument panels. Excellent dimensional stability  
Transparency Good machinability Information provided by Ensinger, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Ensinger-Tecanat-Unfilled-Polycarbonate-PC.php](http://www.lookpolymers.com/polymer_Ensinger-Tecanat-Unfilled-Polycarbonate-PC.php)

Physical Properties	Metric	English	Comments
Density	1.19 g/cc	0.0430 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.15 %	0.15 %	at 24 hours; ASTM D570
Water Absorption at Saturation	0.35 %	0.35 %	ASTM D570

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	70	70	ASTM D785
Hardness, Rockwell R	118	118	ASTM D785
Tensile Strength, Yield	60.0 MPa	8700 psi	ASTM D638
Elongation at Break	50 %	50 %	ASTM D638
Tensile Modulus	2.07 GPa	300 ksi	ASTM D638
Flexural Strength	97.9 MPa	14200 psi	ASTM D790
Flexural Modulus	2.34 GPa	340 ksi	ASTM D790
Izod Impact, Notched	1.07 J/cm	2.00 ft-lb/in	ASTM D256
Coefficient of Friction, Dynamic	0.38	0.38	40 psi, 50 fpm; ASTM D3702
K (wear) Factor	5040 x 10 <sup>-8</sup> mm <sup>3</sup> /N-M	2500 x 10 <sup>-10</sup> in <sup>3</sup> -min/ft-lb-hr	40 psi, 50 fpm; ASTM D3702

Thermal Properties	Metric	English	Comments
CTE, linear	68.4 µm/m-°C	38.0 µin/in-°F	ASTM D696
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Specific Heat Capacity	1.26 J/g-°C	0.300 BTU/lb-°F	
Maximum Service Temperature, Air	116 °C	240 °F	Long Term; ASTM UL746B

Thermal Properties	135 °C Metric	275 °F English	Intermittent Comments
Deflection Temperature at 0.46 MPa (66 psi)	138 °C	280 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	132 °C	270 °F	ASTM D648
Vicat Softening Point	154 °C	310 °F	
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+17 ohm-cm	1.00e+17 ohm-cm	ASTM D257
Dielectric Constant	2.96	2.96	ASTM D150
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dielectric Strength	3.2	3.2	ASTM D150
	@Frequency 60 Hz	@Frequency 60 Hz	
Dielectric Strength	15.0 kV/mm	380 kV/in	ASTM D149
Dissipation Factor	0.00090	0.00090	ASTM D150
	@Frequency 60 Hz	@Frequency 60 Hz	

## Contact Songhan Plastic Technology Co.,Ltd.

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