

## TECASINT IM natural

### Chemical Designation

PI (Polyimide)

### Colour

brown

### Density

1.33 g/cm<sup>3</sup>

### Main features

high continuous use temperature  
good slide and wear properties  
high purity  
excellent dimensional stability

### Target Industries

semiconductor technology  
cleanroom technology  
aircraft and aerospace technology  
electronics  
hot glass technology

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Tensile strength		92	MPa	ASTM D 638	
Elongation at break		90	%	ASTM D 638	
Flexural strength		137	MPa	ASTM D 790	
Modulus of elasticity (flexural test)		2.9	GPa	ASTM D 790	
Impact strength (Izod)		88	J/m	ASTM D 256	
Rockwell hardness	R Scale	129		ASTM D 785	
Rockwell hardness	M Scale	95		ASTM D 785	
<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Deflection temperature		230	°C	ASTM D 648	
Thermal expansion (CLTE)		5.5*10E-5/K		ASTM D 696	
Specific heat		1.01	kJ/°C*kg	-	
Thermal conductivity		0.17	W/m*°C	ASTM C 177	
<i>Electrical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Dissipation factor	1MHz	0.0034		ASTM D 150	
Dissipation factor	1 kHz	0.0009		ASTM D 150	
Dielectric constant	1MHz	3.1		ASTM D 150	
Surface resistivity		10E17-10E18	Ω	ASTM D 257	
Dielectric constant	1 kHz	3.2		ASTM D 150	
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Flammability (UL94)		V-0		-	1) (1) 0.4mm

This information reflects the current state of our knowledge and is intended only to assist and advise. It is given without obligation or liability. It does not assure or guarantee chemical resistance, quality of products or their suitability in any legally binding way. Values are not minimum or maximum values, but guidelines that can be used for comparative purposes in material selection. They are within the normal range of product properties and do not represent guaranteed property values. Testing under individual application circumstances is always recommended. Data is obtained from extruded shapes material unless otherwise noted. References to FDA compliance refer to the resins from which the products were made unless otherwise noted. All trade and patent rights should be observed. All rights reserved. Data sheet values are subject to periodic review, the most recent update can be found at [www.ensingerplastics.com](http://www.ensingerplastics.com).

**Ensinger Precision Components**  
11 Danco Road  
Putnam CT 06260 USA

Date: 2020/11/24

Version:

Phone 860-928-7911  
Fax 860-928-2229  
Email: [info@ensinger-pc.com](mailto:info@ensinger-pc.com)