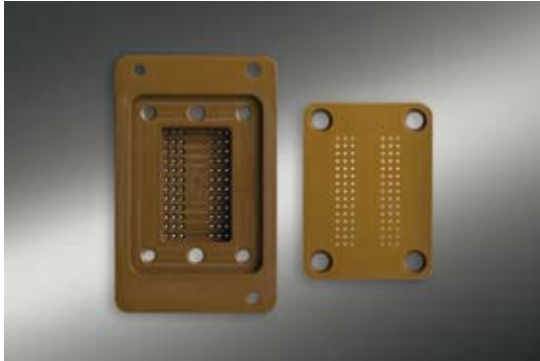
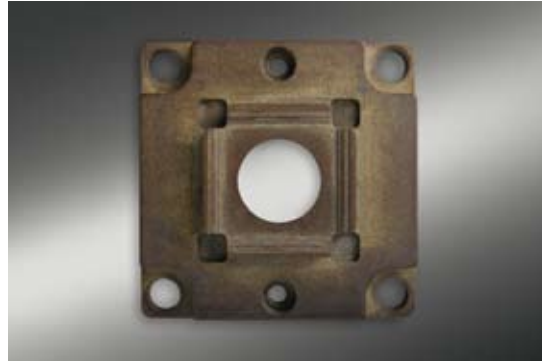


**TECASINT 5000**

Testsocket



Lead backer

**TECASINT 5000** is an amorphous high-temperature polyamide-imide. Parts made from this material will benefit from its excellent dimensional stability. They bear a very high load at temperatures which are unreachable for other plastics. Even heating up to 330°C for short terms, parts made of **TECASINT 5000** do not melt or soften.

**TECASINT 5011 brown**

(SINTIMID PAI pur)

High mechanical strength, easily machinable, very good electrical insulation.

**TECASINT 5311 black**

(SINTIMID PAI CS/TF)

Enhanced friction and wear properties, suitable for high load bearings, excellent dimensional stability and creep resistance.

**TECASINT 5051 dark brown**

(SINTIMID PAI GF 30)

Low thermal expansion, high thermal-mechanical load, good creep resistance, good electrical insulation.

**TECASINT 5201 black**

(SINTIMID PAI SD)

Static dissipative, surface resistance  $10^{9-12} \Omega$ .

**TECASINT 5211 black**

(SINTIMID PAI SD)

Static dissipative, surface resistance  $10^{7-9} \Omega$ .

**Properties**

- | Wide temperature range from -270°C up to +300°C
- | Long term service high stability and high creep resistance
- | Outstanding radiation resistance
- | Different grades of surface resistance available
- | Good chemical resistance

**Preferred fields**

Semiconductor, electrical engineering, electronics, conveyor technology, mechanical engineering

**Applications**

Mask for chip test equipment, switch parts, test sockets, insulators, gripper parts, bushings

## Property values

		TECASINT 5011	TECASINT 5311	TECASINT 5051	TECASINT 5201	TECASINT 5211
<b>Abbreviation</b>		PAI	PAI CS/TF	PAI GF 30	PAI SD	PAI SD
<b>Colour</b>		brown	black	dark brown	black	black
<b>Density (ASTM D 792, DIN EN ISO 1183)</b>	$\rho$ g/cm <sup>3</sup>	1,38	1,41	1,57	1,54	1,36
<b>Tensile strength at break (DIN EN ISO 527)</b>	$\sigma_B$ MPa	110	94	94	85	
<b>Elongation at break (DIN EN ISO 527, 23 °C)</b>	$\epsilon_R$ %	5,5	5,2	3,4	4,0	
<b>Modulus of elasticity after tensile test (DIN EN ISO 527)</b>	$E_Z$ MPa	4500		5810		
<b>Flexural strength (DIN EN ISO 178)</b>	$\sigma_B$ MPa	162	140	163	135	132
<b>Modulus of elasticity after flexural test (DIN EN ISO 178)</b>	$E_B$ MPa	4240		6675		4604
<b>Hardness (Shore D, DIN 53505)</b>	H	91	88	92	93	90
<b>Impact resistance (DIN EN ISO 179 (Charpy))</b>	$a_n$ kJ/m <sup>2</sup>	37,4		27,3		
<b>Glass transition temperature (DIN EN ISO 3146)</b>	$T_g$ °C	340	340	340	340	340
<b>Thermal conductivity (23 °C)</b>	$\lambda$ W/(K·m)					
<b>Specific heat (23 °C)</b>	c J/(g·K)					
<b>Coefficient of linear thermal expansion (50-200 °C, DIN 53752)</b>	$\alpha$ 10 <sup>-5</sup> 1/K	48	43	33	33	33
<b>Volume resistance (DIN IEC 60093, EC 93)</b>	$\rho_D$ Ω cm					
<b>Surface resistance (EC 93, DIN IEC 60093)</b>	$R_o$ Ω		8-10 <sup>11</sup>	10 <sup>14</sup>	10 <sup>9</sup> -10 <sup>12</sup>	10 <sup>7</sup> -10 <sup>9</sup>
<b>Dielectric constant (10<sup>6</sup> Hz, DIN 53 483, IE-250)</b>	$\epsilon_r$					
<b>Dielectric loss factor (27 MHz, DIN 53 483, IE-250)</b>	tan $\delta$					
<b>Dielectric strength (DIN ISO 60243-1)</b>	$E_d$ kV/mm					
<b>Water absorption (24 h, 23 °C, in water, EN ISO 62)</b>	W%	0,69	0,60	0,53	0,47	0,47
<b>Flammability acc. to UL-Standard 94</b>		V0	V0	V0	V0	V0

## Stock program



### Rods

**Tolerances:** + 0,2 / + 0,8  
**Diameter:** 6 - 75 mm  
**Stock length:**  
 Ø 6-12 mm: 395 mm  
 Ø 12,7-15 mm: 395 mm, 795 mm  
 from Ø 16 mm: 395 mm, 795 mm, 1000 mm.

Other delivery lengths possible.  
 Also available ground.



### Plates

**Tolerances:**  
 Thickness 6-20 mm: 0 / + 0,8 mm  
 Thickness 20-60 mm: 0 / 1 mm  
 Thickness 65-80 mm: 0 / 1,5 mm.

**Thickness:** 6 - 80 mm

**Widths:**  
 Thickness 6-55 mm: 300 / 395 mm  
 from thickness 60 mm: 300 mm

**Stock length:**  
 Width 300 mm: stock length 1000 mm  
 Width 395 mm: stock length 795 mm

Other delivery lengths possible.



### Tubes

Available on request.

The information corresponds with current knowledge and indicates our products and possible applications. We cannot give you a legally binding guarantee of the physical properties or the suitability for a specific application. Existing commercial patents are to be taken in account. Please find information concerning the exclusion of liability and Terms and Conditions of Delivery in our Semi-finished products catalogue or at [www.ensinger-online.com](http://www.ensinger-online.com).