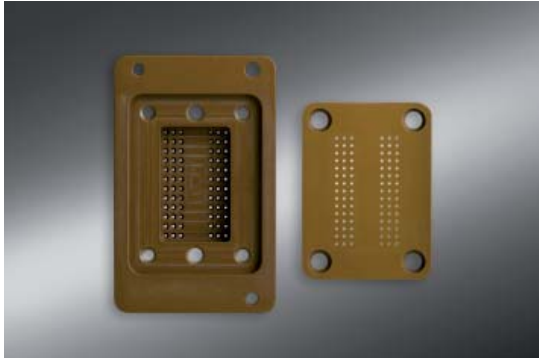


**TECASINT 5000**

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**

(SINTIMID PAI pur)

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

**TECASINT 5051**

(SINTIMID PAI GF 30)

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

**TECASINT 5201**

(SINTIMID PAI SD)

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

**TECASINT 5211**

(SINTIMID PAI SD)

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

**TECASINT 5311**

(SINTIMID PAI CS/TF)

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

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

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).

## 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  
 ab 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.