

TECASINT 4011 natural - halvfabrikat

Kemisk beteckning

PI (polyimid)

Färg

gul

Densitet

1.42 g/cm³

Huvud egenskaper

- mycket hög termisk och oxidativ resistans
- mycket låg vattenabsorption
- hög termisk och mekanisk kapacitet
- högt krypmotstånd
- bra kemisk resistans
- motstånd mot hög energi strålning
- känslig för hydrolysis i högre termiska intervall

Målindustrier

- maskinteknik
- precisions teknik
- elektronik
- elektroteknik
- transportteknik
- halvledarteknik

Mekaniska Egenskaper	parameter	värde	enhet	norm	anmärkning
Draghållfasthet	50 mm/min	130	MPa	DIN EN ISO 527-1	(1) eU
Elasticitetsmodul (dragprov)	1 mm/min	4300	MPa	DIN EN ISO 527-1	(2) eA
Brottförlängning	50 mm/min	6.5	%	DIN EN ISO 527-1	(3) Specimen in 4mm thickness
Böjhållfasthet	10 mm/min	180	MPa	DIN EN ISO 178	
Elasticitetsmodul (böjningstest)	2 mm/min	4000	MPa	DIN EN ISO 178	
Kompressionsstyrka	10mm/min, 10% strain	185	MPa	EN ISO 604	
Kompressionsmodul	1 mm/min	4123	MPa	EN ISO 604	
slagstyrka (charpy)	max 7.5 J	87	kJ/m ²	DIN EN ISO 179-1	1)
Skårslahseghet (Charpy)	max 7.5 J	9.6	kJ/m ²	DIN EN ISO 179-1	2)
Shore hårdhet	Shore D	88		DIN EN ISO 868	
Kultrycks hårdhet		265	MPa	ISO 2039-1	3)
Värmeledningsförmåga	parameter	värde	enhet	norm	anmärkning
Glasövergångstemperatur		260	°C	DIN EN ISO 11357	(1) Thermal expansion XY/Z axis
värmeförvrängning stempertur	1.82 MPa	360	°C	ASTM D 648	(2) Thermal expansion XY/Z axis
termisk expansion	50-200°C	4.6 / 5.6	10 ⁻⁵ K ⁻¹	DIN 53 752	(3) Thermal expansion XY/Z axis
termisk expansion	200-300°C	6.2 / 7.6	10 ⁻⁵ K ⁻¹	DIN 53 752	2)
termisk expansion	300-350°C	8.5 / 11.2	10 ⁻⁵ K ⁻¹	DIN 53 752	3)
Specifik värme		1.22	J/(g*K)	ASTM E1461	
Värmeledningsförmåga	40°C	0.4	W/(K*m)	ASTM E1461	
Elektriska egenskaper	parameter	värde	enhet	norm	anmärkning
Specifik ytmotstånd	23°C	10 ¹⁶	Ω	ASTM D 257	
Specifik volymresistans	23°C	10 ¹⁶	Ω*cm	ASTM D 257	
Elektrisk styrka DC	23°C	18	kV*mm ⁻¹	ASTM D 149	
Dielektrisk förlustfaktor	1 kHz	1*10 ⁻³		ASTM D 150	
Dielektrisk konstant	1 kHz	3.59		ASTM D 150	
Övriga egenskaper	parameter	värde	enhet	norm	anmärkning
Vatten absorption	24 h in water, 23°C	0.16	%	DIN EN ISO 62	(1) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.
Vatten absorption	24 h in water, 80°C	0.6	%	DIN EN ISO 62	
Outgassing in high vacuum		passed		ECSS-Q-70-02	
Brandklassning (UL94)	corresponding to	V0		DIN IEC 60695-11-10;	1)
Syreindex		49	%	EN ISO 4589-2	

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