

TECASINT 5511 SD light-brown - halvfabrikat

Kemisk beteckning

PI (polyimid)

Färg

Brun

Densitet

1.65 g/cm³

Fillers

glas fibrer

Huvud egenskaper

- elektriskt statisk dissipativ
- hög termisk och mekanisk kapacitet
- låg termisk expansion
- högt kryp motstånd
- motstånd mot hög energi strålning

Målindustrier

- elektronik
- halvledartechnik
- kryogenteknik
- elektroteknik
- maskinteknik
- kärn- och vakuumteknik

Mekaniska Egenskaper	parameter	värde	enhet	norm	anmärkning
Draghållfasthet	50 mm/min, 23°C	97	MPa	DIN EN ISO 527-1	
Elasticitetsmodul (dragprov)	1 mm/min, 23°C	5600	MPa	DIN EN ISO 527-1	
Brottförlängning	50 mm/min, 23°C	2,1	%	DIN EN ISO 527-1	
Böjhållfasthet	10 mm/min, 23°C	128	MPa	DIN EN ISO 178	
Elasticitetsmodul (böjningstest)	2 mm/min, 23°C	5588	MPa	DIN EN ISO 178	
Brottförlängning (böjtest)	10 mm/min, 23°C	2,3	%	DIN EN ISO 178	
Kompressionsstyrka	10 mm/min, 23°C	254	MPa	EN ISO 604	
tryckhållfasthet vid brott	10 mm/min, 23°C	21,4	%	EN ISO 604	
Kompressionsmodul	1 mm/min	5890	MPa	EN ISO 604	
Shore hårdhet	Shore D, 23°C	92		DIN EN ISO 868	
Värmeledningsförmåga	parameter	värde	enhet	norm	anmärkning
Glasövergångstemperatur		329	°C	DIN EN ISO 11357	(1) Found in public sources. Individual testing regarding application conditions is mandatory.
Service temperatur	lower operating temperature	- 20	°C	-	1)
Service temperatur	short-term	300	°C	-	2)
Service temperatur	long-term	250	°C	-	3)
termisk expansion	23-100°C	32	10 ⁻⁶ K ⁻¹	DIN EN ISO 11359-1;2	4)
termisk expansion	100-150°C	35	10 ⁻⁶ K ⁻¹	DIN EN ISO 11359-1;2	5)
termisk expansion	50-200°C	35	10 ⁻⁶ K ⁻¹	DIN EN ISO 11359-1;2	6)
Specifik värme		1,01	J/(g*K)	DIN EN 821	(4) Thermal expansion XY axis
Värmeledningsförmåga	40°C	0,32	W/(K*m)	DIN EN 821	(5) Thermal expansion XY axis (6) Thermal expansion XY axis
Elektriska egenskaper	parameter	värde	enhet	norm	anmärkning
surface resistance	23°C	10 ⁰⁹ - 10 ¹¹	Ω	ANSI ESD STM 11.11	
Specifikt yt motstånd	23°C	10 ¹⁰ - 10 ¹²	Ω/square	ANSI ESD STM 11.11	
Elektrisk resistans	23°C	10 ⁰⁹ - 10 ¹¹	Ω	ANSI ESD STM 11.12	
Specifikt volym resistans	23°C	10 ¹⁰ - 10 ¹²	Ω*cm	ANSI ESD STM 11.12	
Övriga egenskaper	parameter	värde	enhet	norm	anmärkning
Vatten absorption	24 h in water, 23°C	0.60	%	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.
Brandklassning (UL94)	corresponding to	V0		DIN IEC 60695-11-10;	1)

→ TECASINT 5000 series show significant water uptake. Parts have to be pre-dried before fast heating to above 200 °C (drying process: 2 h per 3 mm wall thickness at 150 °C).

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