

TECASINT 5051 grey-green - halvfabrikat

Kemisk beteckning

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Färg

Mörk brun

Densitet

1.56 g/cm³

Fillers

glas fibrer

Huvud egenskaper

- hög termisk och mekanisk kapacitet
- mycket bra elektrisk isolering
- bra slitenskaper
- låg termisk expansion
- motstånd mot hög energi strålning
- högt krypmotstånd
- känslig för hydrolys i högre termiska intervall

Målindustrier

- halvledarteknik
- elektronik
- maskinteknik
- kryogenteknik

Mekaniska Egenskaper	parameter	värde	enhet	norm	anmärkning
Draghållfasthet	50 mm/min	110	MPa	DIN EN ISO 527-1	(1) eU
Elasticitetsmodul (dragprov)	1 mm/min	6500	MPa	DIN EN ISO 527-1	
Brottförlängning	50 mm/min	2.2	%	DIN EN ISO 527-1	
Böjållfasthet	10 mm/min	162	MPa	DIN EN ISO 178	
Elasticitetsmodul (böjningstest)	2 mm/min	6600	MPa	DIN EN ISO 178	
Brottförlängning (böjtest)	10 mm/min	2.6	%	DIN EN ISO 178	
Kompressionsstyrka	10 mm/min	260	MPa	EN ISO 604	
tryckhållfasthet vid brott	10 mm/min	20	%	EN ISO 604	
Kompressionsmodul	1 mm/min	3000	MPa	EN ISO 604	
slagstyrka (charpy)	max 7.5 J	20	kJ/m ²	DIN EN ISO 179-1	1)
Shore hårdhet	Shore D	92		DIN EN ISO 868	
Värmeledningsförmåga	parameter	värde	enhet	norm	anmärkning
Glasövergångstemperatur		330	°C	-	1)
värmeförvrängning temperatur	1,8 MPa	344	°C	DIN 53 461	(1) DMA, maximum loss factor tan d
termisk expansion	23-100°C	2.8 / -	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	2) axis
termisk expansion	100-150°C	2.8 / -	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	3) axis
termisk expansion	50-200°C	2.8 / -	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	4) axis
Specifik värme		1.04	J/(g*K)	DIN EN 821	
Värmeledningsförmåga	40°C	0.3	W/(K*m)	DIN EN 821	
Elektriska egenskaper	parameter	värde	enhet	norm	anmärkning
Specifik ytmodstånd	23°C	> 10 ¹⁴	Ω	DIN EN 61340-2-3	
Specifik volymresistans	23°C	> 10 ¹⁴	Ω*cm	DIN EN 61340-2-3	
Elektrisk styrka DC		24	kV*mm ⁻¹	ISO 60243-1	
Dielektrisk förlustfaktor	50 Hz	3.2*10 ⁻²		DIN 53483-1	
Dielektrisk förlustfaktor	1 kHz	2.2*10 ⁻³		DIN 53483-1	
Dielektrisk förlustfaktor	1 MHz	1.1*10 ⁻²		DIN 53483-1	
Dielektrisk konstant	50 Hz	3.0		DIN 53483-1	
Dielektrisk konstant	1 kHz	2.9		DIN 53483-1	
Dielektrisk konstant	1 MHz	2.9		DIN 53483-1	
Övriga egenskaper	parameter	värde	enhet	norm	anmärkning
Vatten absorption	24 h in water, 23°C	0.48	%	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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