

TECASINT 1021 black - halvfabrikat

Kemisk beteckning

PI (polyimid)

Färg

Svart

Densitet

1.41 g/cm³

Fillers

15% grafit

Huvud egenskaper

- mycket bra glid- och slitegenskaper
- mycket god termisk stabilitet
- Bra slitstyrka
- bra kemisk resistans
- hög termisk och mekanisk kapacitet
- motstånd mot hög energi strålning
- högt kryp motstånd
- känslig för hydrolys i högre termiska intervall

Målindustrier

- bilindustrin
- flygplan och rymdteknik
- kryogenteknik
- transportteknik
- varm glasteknik
- maskinteknik
- precisions teknik

Mekaniska Egenskaper	parameter	värde	enhet	norm	anmärkning
Draghållfasthet	50 mm/min	97	MPa	DIN EN ISO 527-1	(1) eU (2) eA
Elasticitetsmodul (dragprov)	1 mm/min	4000	MPa	DIN EN ISO 527-1	
Brottförlängning	50 mm/min	3.2	%	DIN EN ISO 527-1	
Böjållfasthet	10 mm/min	150	MPa	DIN EN ISO 178	
Elasticitetsmodul (böjningstest)	2 mm/min	4000	MPa	DIN EN ISO 178	
Brottförlängning (böjtest)	10 mm/min	4.0	%	DIN EN ISO 178	
Kompressionsstyrka	10 mm/min	210	MPa	EN ISO 604	
Kompressionsstyrka	10mm/min, 10% strain	175	MPa	EN ISO 604	
Kompressionsmodul	1 mm/min	1880	MPa	EN ISO 604	
tryckhållfasthet vid brott	10 mm/min	20.1	%	EN ISO 604	
slagstyrka (charpy)	max 7.5 J	34	kJ/m ²	DIN EN ISO 179-1	1)
Skårslahseghet (Charpy)	max 7.5 J	3.7	kJ/m ²	DIN EN ISO 179-1	2)
Shore hårdhet	Shore D	88		DIN EN ISO 868	
Värmeledningsförmåga	parameter	värde	enhet	norm	anmärkning
Glasövergångstemperatur		353	°C	-	1)
termisk expansion	50-200°C	3.8 /	10 ⁻⁵ K ⁻¹	DIN 53 752	2)
Specifik värme		1.16	J/(g*K)	-	
Värmeledningsförmåga	40°C	0.80	W/(K*m)	ISO 8302	
Övriga egenskaper	parameter	värde	enhet	norm	anmärkning
Vatten absorption	24 h in water, 23°C	0.78	%	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	1.57	%	DIN EN ISO 62	
Brandklassning (UL94)	corresponding to	V0		DIN IEC 60695-11-10;	1)

→ TECASINT 1000 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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