

## TECASINT 1021 black - halvfabrikat

### Kemisk beteckning

PI (polyimid)

### Färg

Svart

### Densitet

1.41 g/cm<sup>3</sup>

### Fillers

15% grafit

### Huvud egenskaper

- mycket bra glid- och slittegenskaper
- mycket god termisk stabilitet
- Bra slitstyrka
- bra kemisk resistans
- hög termisk och mekanisk kapacitet
- motstånd mot hög energi strålning
- högt krypmotstånd
- 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, 23°C	97	MPa	DIN EN ISO 527-1	(1) eU
Elasticitetsmodul (dragprov)	1 mm/min, 23°C	4000	MPa	DIN EN ISO 527-1	(2) eA
Brottförlängning	50 mm/min, 23°C	3.2	%	DIN EN ISO 527-1	(3) Ensinger Standard
Brottförlängning	10 mm/min, 23°C	4.0	%	DIN EN ISO 178	
Böjhållfasthet	10 mm/min, 23°C	150	MPa	DIN EN ISO 178	
Elasticitetsmodul (böjningstest)	2 mm/min, 23°C	4000	MPa	DIN EN ISO 178	
Kompressionsstyrka	10 mm/min, 23°C	210	MPa	EN ISO 604	
Kompressionsstyrka	10mm/min, 10% strain, 23°C	175	MPa	EN ISO 604	
tryckhållfasthet vid brott	10 mm/min, 23°C	20.1	%	EN ISO 604	
Kompressionsmodul	1 mm/min, 23°C	1880	MPa	EN ISO 604	
slagstyrka (charpy)	max 7.5 J, 23°C	34	kJ/m <sup>2</sup>	DIN EN ISO 179-1	1)
Skårslahseghet (Charpy)	max 7.5 J, 23°C	3.7	kJ/m <sup>2</sup>	DIN EN ISO 179-1	2)
Shore hårdhet	Shore D, 23°C	88	-	-	3)
Värmeledningsförmåga	parameter	värde	enhet	norm	anmärkning
Glasövergångstemperatur		353	°C	-	1)
värmeförvrängning stemperatur	1.85 MPa	300	°C	DIN 53 461	
Service temperatur	long-term	-	°C	-	2)
termisk expansion	50-200°C	3.8 /	10 <sup>-5</sup> K <sup>-1</sup>	DIN 53 752	3)
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).
Vatten absorption	24 h in water, 80°C	1.57	%	DIN EN ISO 62	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 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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