

TECASINT 2391 black - halvfabrikat

Kemisk beteckning

PI (polyimid)

Färg

Svart

Densitet

1.53 g/cm³

Fillers

15% molybden-disulfid (MoS₂)

Huvud egenskaper

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

Målindustrier

- flygplan och rymdteknik
- kryogenteknik
- precisions teknik
- vakuumteknik

Mekaniska Egenskaper	parameter	värde	enhet	norm	anmärkning
Draghållfasthet	50 mm/min	95	MPa	DIN EN ISO 527-1	(1) Specimen in 4mm thickness
Elasticitetsmodul (dragprov)	1 mm/min	4100	MPa	DIN EN ISO 527-1	
Brottförlängning	50 mm/min	3.5	%	DIN EN ISO 527-1	
Böjhållfasthet	10 mm/min	140	MPa	DIN EN ISO 178	
Elasticitetsmodul (böjningstest)	2 mm/min	3900	MPa	DIN EN ISO 178	
Brottförlängning (böjtest)	10 mm/min	4.0	%	DIN EN ISO 178	
Kompressionsstyrka	10 mm/min	230	MPa	EN ISO 604	
Kompressionsstyrka	10mm/min, 10% strain	165	MPa	EN ISO 604	
tryckhållfasthet vid brott	10 mm/min	35.6	%	EN ISO 604	
Kompressionsmodul	1 mm/min	2000	MPa	EN ISO 604	
Shore hårdhet	Shore D	88		DIN EN ISO 868	
Kultrycks hårdhet		265	MPa	ISO 2039-1	1)
Värmeledningsförmåga	parameter	värde	enhet	norm	anmärkning
Glasövergångstemperatur		357	°C	-	1)
termisk expansion	200-300°C	5.0 / 5.7	10 ⁻⁵ K ⁻¹	DIN 53 752	2)
termisk expansion	50-200°C	4.0 / 4.7	10 ⁻⁵ K ⁻¹	DIN 53 752	3)
Övriga egenskaper	parameter	värde	enhet	norm	anmärkning
Vatten absorption	24 h in water, 23°C	0.53	%	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	1.58	%	DIN EN ISO 62	
Outgassing in high vacuum		passed		ECSS-Q-70-02	
Brandklassning (UL94)	corresponding to	V0		DIN IEC 60695-11-10;	1)

→ TECASINT 2000 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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