

TECASINT 2031 black - halvfabrikat

Kemisk beteckning

PI (polyimid)

Färg

Antracit

Densitet

1.59 g/cm³

Fillers

40 % grafit

Huvud egenskaper

- hög termisk och mekanisk kapacitet
- mycket bra glid- och slitegenskaper
- mycket god termisk stabilitet
- mycket hög krypresistent
- Bra slitstyrka
- låg termisk expansion
- motstånd mot hög energi strålning
- känslig för hydrolysis 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	52	MPa	DIN EN ISO 527-1	(1) eU (2) eA
Elasticitetsmodul (dragprov)	1 mm/min	5100	MPa	DIN EN ISO 527-1	
Brottförlängning	50 mm/min	1.8	%	DIN EN ISO 527-1	
Böjållfasthet	10 mm/min	87	MPa	DIN EN ISO 178	
Elasticitetsmodul (böjningstest)	2 mm/min	4800	MPa	DIN EN ISO 178	
Brottförlängning (böjtest)	10 mm/min	2.0	%	DIN EN ISO 178	
Kompressionsstyrka	10 mm/min	125	MPa	EN ISO 604	
Kompressionsstyrka	10mm/min, 10% strain	120	MPa	EN ISO 604	
Kompressionsmodul	1 mm/min	1800	MPa	EN ISO 604	
tryckhållfasthet vid brott	10 mm/min	12.5	%	EN ISO 604	
slagstyrka (charpy)	max 7.5 J	14.2	kJ/m ²	DIN EN ISO 179-1	1)
Skårslahseghet (Charpy)	max 7.5 J	3.3	kJ/m ²	DIN EN ISO 179-1	2)
Shore hårdhet	Shore D	82		DIN EN ISO 868	
Värmeledningsförmåga	parameter	värde	enhet	norm	anmärkning
Glasövergångstemperatur		355	°C	-	1)
värmeförvrängning temperatur	1.8 MPa	325	°C	DIN 53 461	(1) DMA, maximum loss factor tan d (2) Thermal expansion XY/Z axis
termisk expansion	50-200°C	3.0 /	10 ⁻⁵ K ⁻¹	DIN 53 752	2)
termisk expansion	200-300°C	3.8 /	10 ⁻⁵ K ⁻¹	DIN 53 752	3)
Övriga egenskaper	parameter	värde	enhet	norm	anmärkning
Vatten absorption	24 h in water, 23°C	1.2	%	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	2.2	%	DIN EN ISO 62	
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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