

## TECASINT 2031 black - halvfabrikat

### Kemisk beteckning

PI (polyimid)

### Färg

Antracit

### Densitet

1.59 g/cm<sup>3</sup>

### Fillers

40 % grafit

### Huvud egenskaper

- hög termisk och mekanisk kapacitet
- mycket bra glid- och slittegenskaper
- mycket god termisk stabilitet
- mycket hög krypresistent
- Bra slitstyrka
- låg termisk expansion
- motstånd mot hög energi strålning
- 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	52	MPa	DIN EN ISO 527-1	(1) eU
Elasticitetsmodul (dragprov)	1 mm/min	5100	MPa	DIN EN ISO 527-1	(2) eA
Brottförlängning	50 mm/min	1.8	%	DIN EN ISO 527-1	(3) Ensinger Standard
Böjhållfasthet	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 <sup>2</sup>	DIN EN ISO 179-1	1)
Skårslahseghet (Charpy)	max 7.5 J	3.3	kJ/m <sup>2</sup>	DIN EN ISO 179-1	2)
Shore hårdhet	Shore D	82	-	-	3)
Värmeledningsförmåga	parameter	värde	enhet	norm	anmärkning
Glasövergångstemperatur		355	°C	-	1)
värmeförvrängning stemperatur	1.8 MPa	325	°C	DIN 53 461	(1) DMA, maximum loss factor tan d
termisk expansion	50-200°C	3.0 /	10 <sup>-5</sup> K <sup>-1</sup>	DIN 53 752	(2) Thermal expansion XY/Z axis
termisk expansion	200-300°C	3.8 /	10 <sup>-5</sup> K <sup>-1</sup>	DIN 53 752	(3) Thermal expansion XY/Z axis
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).
Vatten absorption	24 h in water, 80°C	2.2	%	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 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 w all thickness at 150 °C).

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