

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 krypmotstånd
- 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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