

## TECASINT 6062 black - Direct Forming

### Chemical Designation

PI (Polyimide)

### Colour

black

### Density

1.51 g/cm<sup>3</sup>

### Fillers

graphite, PTFE

Production process: direct forming

### Main features

- excellent slip-stick properties
- very good slide and wear properties
- resistance against high energy radiation
- good chemical resistance
- sensitive to hydrolysis in higher thermal range

### Target Industries

- mechanical engineering
- automotive industry
- aircraft and aerospace technology

| Mechanical properties                 | parameter            | value   | unit                             | norm                 | comment |
|---------------------------------------|----------------------|---------|----------------------------------|----------------------|---------|
| Tensile strength                      | 50 mm/min            | 50      | MPa                              | DIN EN ISO 527-1     |         |
| Modulus of elasticity (tensile test)  | 1 mm/min             | 4100    | MPa                              | DIN EN ISO 527-1     |         |
| Elongation at break (tensile test)    | 50 mm/min            | 2.1     | %                                | DIN EN ISO 527-1     |         |
| Flexural strength                     | 10 mm/min            | 75      | MPa                              | DIN EN ISO 178       |         |
| Modulus of elasticity (flexural test) | 2 mm/min             | 4200    | MPa                              | DIN EN ISO 178       |         |
| Elongation at break (flexural test)   | 10 mm/min            | 2.3     | %                                | DIN EN ISO 178       |         |
| Compression strength                  | 10 mm/min            | 125     | MPa                              | EN ISO 604           |         |
| Compression strength                  | 10mm/min, 10% strain | 120     | MPa                              | EN ISO 604           |         |
| Compressive strain at break           | 10 mm/min            | 17      | %                                | EN ISO 604           |         |
| Shore hardness                        | Shore D              | 82      |                                  | DIN EN ISO 868       |         |
| Thermal properties                    | parameter            | value   | unit                             | norm                 | comment |
| Glass transition temperature          |                      | 286     | °C                               | -                    | 1)      |
| Thermal expansion (CLTE)              | 50-200°C             | 2.2 / - | 10 <sup>-5</sup> K <sup>-1</sup> | DIN EN ISO 11359-1;2 | 2)      |
| Thermal expansion (CLTE)              | 200-300°C            | 5.8 / - | 10 <sup>-5</sup> K <sup>-1</sup> | DIN EN ISO 11359-1;2 | 3)      |
| Other properties                      | parameter            | value   | unit                             | norm                 | comment |
| Water absorption                      | 24 h in water, 23°C  | 0.2     | %                                | DIN EN ISO 62        |         |
| Flammability (UL94)                   | corresponding to     | V0      |                                  | DIN IEC 60695-11-10; | 1)      |

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