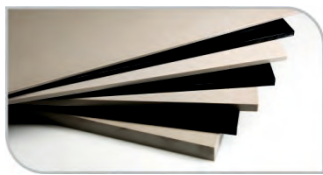


## Engineering Plastics



### TYNAPEEK

#### GENERAL

|                                     |                       |           |           |
|-------------------------------------|-----------------------|-----------|-----------|
| Density                             | 1,3 g/cm <sup>3</sup> | ISO 1183  | DIN 53479 |
| Water absorption in air 50% r.h.    | 0,1 %                 | ISO 62    | DIN 53715 |
| Absorption 23-C in water-saturation | 0,5 %                 | ISO 62    | DIN 53495 |
| Food Compliance - YES               |                       | FDA / BfR |           |

#### MECHANICAL PROPERTIES

|                                                  |                        |           |           |
|--------------------------------------------------|------------------------|-----------|-----------|
| Tensile stress at yield at break                 | 95 N/mm <sup>2</sup>   | ISO 527   | DIN53455  |
| Elongation at break                              | 25 %                   | ISO 527   | DIN53455  |
| Tensile Modulus of elasticity                    | 3000 N/mm <sup>2</sup> | ISO 527   | DIN53455  |
| Compression test 1% strain 1000h                 | 80 N/mm <sup>2</sup>   | ISO 899   | DIN53444  |
| Impact strength Charpy 7,5 J                     | no break               | ISO R179  | DIN53453  |
| Notched impact strength Charpy                   | -                      | ISO179/3C | DIN53453  |
| Ball indentation hardness                        | -                      | ISO2039.1 | DIN53456  |
| Rockwell hardness (dry)                          | M100                   | ISO2039.2 | DIN53456  |
| Coefficient of friction to steel <sup>[12]</sup> | 0,38                   | ISO 8295  | DIN 53375 |

#### THERMAL PROPERTIES

|                                                            |                                       |             |           |
|------------------------------------------------------------|---------------------------------------|-------------|-----------|
| Melting point                                              | 340 °C                                | ISO 3146    |           |
| Thermal conductivity                                       | 0,25 W/(km)                           | ISO 22007.2 | DIN 52612 |
| Deformation at temperature HDT <sup>[15]</sup>             | 140 °C                                | ISO75       | DIN 53461 |
| Linear expansion coefficient 23-60°C                       | 50 x 10 <sup>-6</sup> K <sup>-1</sup> | ISO 11359   | DIN 53752 |
| Operating temperature continuously <sup>[17]</sup>         | 260 °C                                |             |           |
| Operating temperature short period-no load <sup>[18]</sup> | 300 °C                                |             |           |
| Minimum operating temperature <sup>[19]</sup>              | -50 °C                                |             |           |
| Flammability UL 94 (3-6 mm thickness)                      | V0                                    |             | UL94      |
| Oxygen index (LOI)                                         | 40 %                                  | ISO4589     | DIN 22117 |

#### ELECTRICAL PROPERTIES

|                                  |                      |         |           |
|----------------------------------|----------------------|---------|-----------|
| Dielectric constant at 1 MHz.    | 3,2                  | ISO 250 | DIN 53483 |
| Dielectric strength              | 20 KV/mm             | ISO 243 | DIN 53481 |
| Volume resistivity               | 10 <sup>17</sup> Ωcm | ISO 93  | DIN 53482 |
| Dissipation factor tan Δ at 1MHz | 0,003                | ISO 250 | DIN 53483 |

#### Characteristics:

- Excellent Mechanical Properties
- Excellent Thermal Properties
- Superior Wear / Creep Resistance
- Excellent Dimensional Stability
- Excellent Radioactive Properties
- Non Flammability

#### Applications:

- Compressor Valves & Rings
- Transmission Components
- Centrifugal Pump Wear Parts
- Etch Rings
- Wafer Chucks
- Precision Cutting Blades
- Test Sockets

All statements, technical information and recommendations contained in this Technical Data Sheet are presented in good faith, but all information given is without warranty and liability. The reader is cautioned, however that Tynic Engineering Plastics cannot guarantee the accuracy or completeness of this information and it is the customer's responsibility to determine the suitability of Tynic Engineering Plastics products in any given application.