

Product Information

VESTAKEEP® 2500 G High Purity

MEDIUM VISCOSITY, UNREINFORCED POLYETHER ETHER KETONE



VESTAKEEP® 2500 G High Purity is a medium viscosity, unreinforced polyether ether ketone for injection molding and extrusion. The product is refined by Evonik's special filtration technology.

The semi-crystalline polymer features superior, thermal and chemical resistance. Parts made from VESTAKEEP® 2500G High Purity are of low flammability.

VESTAKEEP® 2500 G High Purity can be processed by common machines for thermoplastics.

We recommend a melt temperature between 360°C and 380°C during the injection molding process. The mold temperature should be within a range of 160°C to 200°C, preferably 180°C.

VESTAKEEP® 2500 G High Purity is supplied as granules in 25 kg boxes with moisture-proof polyethylene liners.

Pigmentation may affect values.

Inside the original and undamaged packaging, the product has a shelf life of at least 2 years when stored in dry rooms at temperatures not exceeding 30°C.

Key Features

Industrial Sector

Automotive and Mobility, Aircraft and Aerospace, Industry and Engineering

Processing

Injection molding

Delivery form

Pellets, Granules

Resistance to

Heat (thermal stability)

Additives

Unfilled

| Mechanical properties ISO | dry | Unit | Test Standard |
|---------------------------------------|---------------|----------------------|---------------|
| Tensile modulus | 522000 | psi | ISO 527 |
| Tensile strength | 13800 | psi | ISO 527 |
| Yield stress | 13800 | psi | ISO 527 |
| Yield strain | 5.2 | % | ISO 527 |
| Stress at break | 10200 | psi | ISO 527 |
| Nominal strain at break, tB | 40 | % | ISO 527 |
| Charpy impact strength, +23°C | N | ftlb/in ² | ISO 179/1eU |
| Charpy notched impact strength, +23°C | 2.62 | ftlb/in ² | ISO 179/1eA |
| Type of failure | C | - | - |

| Thermal properties | dry | Unit | Test Standard |
|---------------------|------------|------|----------------|
| Melting temperature | 646 | °F | ISO 11357-1/-3 |
| Melting Temperature | 646 | °F | ASTM D 3418 |

| Physical properties | dry | Unit | Test Standard |
|-------------------------|---------------|--------------------|----------------|
| Density | 1.3 | g/cm ³ | ISO 1183 |
| Water absorption | 0.02 | % | Sim. to ISO 62 |
| Bulk density, Granulate | 0.0509 | lb/ft ³ | - |
| Density | 1.3 | g/cm ³ | ASTM D 792 |

| Rheological properties | dry | Unit | Test Standard |
|----------------------------|------------|------------------------|---------------|
| Melt volume-flow rate, MVR | 35 | cm ³ /10min | ISO 1133 |
| Temperature | 380 | °C | - |
| Load | 5 | kg | - |

| Test specimen production | dry | Unit | Test Standard |
|-------------------------------------|------------|------|---------------|
| Injection Molding, melt temperature | 716 | °F | ISO 294 |
| Injection Molding, mold temperature | 356 | °F | ISO 294 |

VESTAKEEP®

Injection Molding, injection velocity

7.87

in/s

ISO 294

Characteristics

Applications

Electrical and Electronical

Color

Natural color

Special Characteristics

Semi-crystalline, Medium viscosity

Chemical Resistance

General chemical resistance