MELDIN® THERMOPLASTIC MATERIALS & PROPERTIES

Which precision solution is right for you?

Omniseal Solutions
SAINT-GOBAIN

1000 Series PPS

Excellent chemical and thermal resistance

General

Specific Gravity: 1.39 to 1.57

Continuous use temperature:

+200°C (+390°F)

Design Flexibility: Excellent

Mechanical

Tensile Strength

85 to 180 MPa (12.3 to 26.1 kpsi)

Elongation

1.0% to 6.5%

Compressive Strength

90 to 155 MPa (13.1 to 22.5 kpsi)

Flexural Strength

65 to 260 MPa (9.4 to 37.7 kpsi)

Available as

- Basic Shapes
- ✓ Finished Parts

Manufacturing Process

- Hot Compression Molding
- ✓ Isostatic Molding
- ✓ Injection Molding
- Direct Forming

3000 Series PEI

Excellent mating surface compatibility

General

Specific Gravity: 1.40 to 1.65

Continuous use temperature:

+170°C (340°F)

Design Flexibility: Excellent

Mechanical

Tensile Strength

50 to 135 MPa (7.3 to 19.6 kpsi)

Elongation

5.4% to 7.5%

Compressive Strength

n.a.

Flexural Strength

70 to 155 MPa (10.2 to 22.5 kpsi)

Available as

- Basic Shapes
- ✓ Finished Parts

Manufacturing Process

- Hot Compression Molding
- ✓ Isostatic Molding
- ✓ Injection Molding
- Direct Forming

4000 Series PAI

Excellent wear resistance under high load

General

Specific Gravity: 1.43 to 1.51

Continuous use temperature:

+290°C (+555°F)

Design Flexibility: Excellent

Mechanical

Tensile Strength

110 to 220 MPa (16.0 to 31.9 kpsi)

Elongation

1.5% to 4.8%

Compressive Strength

130 to 250 MPa (18.9 to 36.3 kpsi)

Flexural Strength

150 to 350 MPa (21.8 to 50.8 kpsi)

Available as

- Basic Shapes
- ✓ Finished Parts

Manufacturing Process

- Hot Compression Molding
- ✓ Isostatic Molding
- ✓ Injection Molding
- Direct Forming

5000 Series PEEK

Excellent structural integrity

General

Specific Gravity: 1.30 to 1.51

Continuous use temperature:

+260°C (+500°F)

Design Flexibility: Excellent

Mechanical

Tensile Strength

90 to 230 MPa (13.1 to 33.4 kpsi)

Elongation

1.2% to 20%

Compressive Strength

110 to 240 MPa (16.0 to 34.8 kpsi)

Flexural Strength

125 to 330 MPa (18.1 to 47.9 kpsi)

Available as

- ✓ Basic Shapes
- ✓ Finished Parts

Manufacturing Process

- ✓ Hot Compression Molding
- Isostatic Molding
- ✓ Injection Molding
- Direct Forming

SAINT-GOBAIN