

MELDIN® POLYIMIDES MATERIAL COMPARISON

6000 Series PI

Long durability under high temperature and load

General

Specific Gravity: 1.33 to 1.46

Continuous use temperature:

+290°C (+555°F)



Design Flexibility: High

Mechanical

Tensile Strength



105 to 115 MPa (15.2 to 16.7 kpsi)

Elongation



6.0% to 9%

Compressive Strength



205 to 270 MPa (29.7 to 39.2 kpsi)

Flexural Strength



n.a.

Available as

- ✓ Basic Shapes
- ✓ Finished Parts

Manufacturing Process

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

7000 Series PI

Extreme thermal resistance and low wear friction

General

Specific Gravity: 1.34 to 1.67

Continuous use temperature:

+315°C (+600°F)



Design Flexibility: High

Mechanical

Tensile Strength



45 to 85 MPa (6.5 to 12.3 kpsi)

Elongation



3.0% to 8.4%

Compressive Strength



n.a.

Flexural Strength



70 to 110 MPa (10.2 to 16.0 kpsi)

Available as

- ✓ Basic Shapes
- ✓ Finished Parts

Manufacturing Process

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

8000/9000 Series PI

Extreme thermal resistance and dynamic wear life

General

Specific Gravity: 1.07 to 1.40

Continuous use temperature:

+315°C (+600°F)



Design Flexibility: High

Mechanical

Ring Tensile Strength

6.9 to 13.8 MPa
(1,000 to 2,000 psi)

Elongation



n.a.

Compressive Strength



n.a.

Flexural Strength



n.a.

Available as

- ✓ Basic Shapes
- ✓ Finished Parts

Manufacturing Process

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

