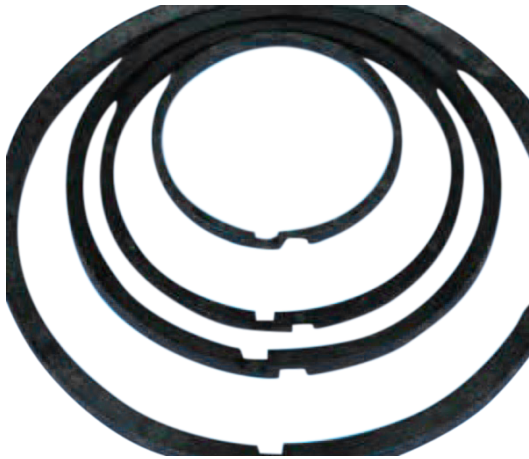


# Saint-Gobain Meldin Product Brochure

V2021JAN



## 21.1 Meldin High-Performance Thermoplastic

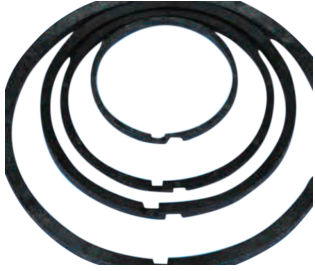
**Saint-Gobain** Performance Plastics produces various polymer products like ptfе bearings, ptfе slide bearings, teflon slide bearing namely Rulon®, Meldin®, Hycomp, HKO and OmniSeal®. These high-performance products are served to a number of industries like Steel, Chemical, Food and Beverages, Aerospace, Automotive etc. The advantage of these performance Plastics is that they can be used to produce required products, like bushings, liners, etc. with required dimensions.

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## 21.1 Meldin High-Performance Thermoplastic

### 21.1.1 MELDIN® 1000



#### Selection parameters

Parameters	Min	Max
Tensile Strength (Break RT)	57 MPa	175 MPa
Compressive Strength (RT)	93 MPa	155 MPa
Flexural Strength (RT)	106 Mpa	259 Mpa
Melting point	316 °C	

Meldin® 1000 series is a Saint-Gobain Seals product line based on PPS compounds. Components made of Meldin® 1000 series materials exhibit excellent chemical and thermal resistance, have good dimensional stability and maintain structural integrity, providing design versatility. All grades are processed by Injection Molding and available as finished parts. The different grade number references a different composition resulting in different properties. Few stock shapes are available, mainly to support prototyping activity.

#### Industries it caters to

- Automobile Manufacturer
- Oil, Gas Exploration & Refinery
- Medical Industry
- Food Industry
- Aerospace

#### Product application

- AC Compressor
- Steering System Yokes
- Food Blender Motor
- Medical Device Compressor

### 21.1.2 MELDIN® 4000



#### Selection parameters

Parameters	Min	Max
Tensile Strength (Break RT)	108 MPa	221 MPa
Compressive Strength (RT)	129 MPa	250 MPa
Flexural Strength (RT)	147 Mpa	350 Mpa
Melting point	371 °C	

Meldin® 4000 is Saint Gobain Seals' product line of PAI (polyamide-imide) based compounds. The different numbers within the series refer to the unique composition and different properties of the various compounds. Meldin® 4000 grades are manufactured by Injection Molding with a very limited number of shapes available for prototyping activity. All 4000 series compounds have common properties that make them suitable replacements for metal components: they are stiff and retain high mechanical strength at elevated temperatures; they are very durable even in harsh applications in regards to wearing; and they are chemically compatible with all automotive fluids (fuels and oils).

#### Industries it caters to

- Automobile Manufacturer
- Oil, Gas Exploration & Refinery
- Medical Industry
- Food Industry
- Aerospace

#### Product application

- Dual Clutch Transmission
- Transmission & Gearbox

## 21.1 Meldin High-Performance Thermoplastic (continued)

### 21.1.1 MELDIN® 5000



#### Selection parameters

Parameters	Min	Max
Tensile Strength (Break RT)	70 MPa	228 MPa
Compressive Strength (RT)	108 MPa	240 MPa
Flexural Strength (RT)	123 Mpa	331 Mpa
Melting point	343 °C	

Components made with Meldin® 5000 series (PAEK and PEEK-based compounds) have several advantages over metals, machined ceramics and other costly machined materials, with the ease and convenience of thermoplastics. Having a high tensile, compressive and flexural strength, Meldin® 5000 materials are Injection Molded into tight-tolerance finished components in simple or complex designs that can exhibit metal-like finishes without expensive machining or secondary operations, and with the advantages of being lighter and corrosion-resistant.

#### Industries it caters to

- Automobile Manufacturer
- Oil, Gas Exploration & Refinery
- Medical Industry
- Food Industry
- Aerospace

#### Product application

- Dual Clutch Transmission
- Steering System Yokes
- FPSO (Floating Production, Storage and Offloading)
- High-Pressure, High-Temperature Turret Swivel
- Food Blender Motor
- Dental Drill

### 21.1.1 MELDIN® 7000



#### Selection parameters

Parameters	Min	Max
Tensile Strength (23°C)	49.6 MPa	86.2 MPa
Compressive Stress @ 1% Strain (23°C)	15.9 MPa	32.4 MPa
Flexural Strength (23°C)	72.4 Mpa	109 Mpa

Meldin® 7000 series materials exhibit extremely high dimensional stability at elevated temperatures. Testing has shown Meldin® 7000 to have less than 0.04% variation from its original dimensions after cycling from 73°F (22.77°C) to 500°F (260°C) over a 2-day period. The material is able to withstand thermal shocks very well, adding to the dimensional stability of the material.

#### Industries it caters to

- Automobile Manufacturer
- Oil, Gas Exploration & Refinery
- Medical Industry
- Food Industry
- Aerospace

#### Product application

- Plasma-Cutting Torches in the Torch Handle
- Aircraft Airframe Systems such as Landing Gear and Fuselage Components
- Piston Rings and Thrust Washers in Transmissions and Pumps for Automotive
- Runner Nozzles used for Injection Molding Thermoplastics such as PET Bottle Preforms