



# KetaSpire<sup>®</sup> MS NT1 AM Filament

## polyetheretherketone

Ketaspire<sup>®</sup> MS NT1 AM Filament provides long-term performance up to 240 °C, including exceptional chemical resistance, outstanding wear and abrasion resistance. These properties make it particularly suited for metal

replacement in critical applications in severe end-use environments, such as Oil & Gas, Aerospace and Automotive.

### General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Features	• Chemical Resistant • Ductile • Flame Retardant • Good Dimensional Stability • Good Impact Resistance • High Heat Resistance
Uses	• Aerospace Applications • Automotive Applications • Oil/Gas Applications
RoHS Compliance	• Contact Manufacturer
Appearance	• Natural Color
Forms	• Filament
Processing Method	• 3D Printing, Fused Filament Fabrication (FFF)

Physical	Typical Value	Unit	Test method
Density / Specific Gravity	1.29		ASTM D792

Mechanical	Typical Value	Unit	Test method
Tensile Modulus	3120	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield	85.0	MPa	
Break	48.0	MPa	
Tensile Elongation			ASTM D638
Yield	4.8	%	
Break	26	%	

Impact	Typical Value	Unit	Test method
Notched Izod Impact	81	J/m	ASTM D256

Thermal	Typical Value	Unit	Test method
Melting Temperature	343	°C	ASTM D3418

Additional Information	Typical Value	Unit
Diameter - Filament	1.75	mm

# KetaSpire® MS NT1 AM Filament

polyetheretherketone

---

Printing conditions for above data table:

- Filament drying conditions, minimum 4h: 150°C
- Extruder temperature: 400-440°C
- Bed temperature: 180-220°C
- Printing tool path: cross hatching in the XY plane

Test specimen parameters:

- First layer: 0.3mm thick
  - Subsequent layers: 0.1mm
  - 100% infill
  - 3 shells
  - Printing speed: 18 mm/s
- 

## Notes

---

Typical properties: these are not to be construed as specifications.



Progress beyond

**[www.solvay.com](http://www.solvay.com)**

[SpecialtyPolymers.EMEA@solvay.com](mailto:SpecialtyPolymers.EMEA@solvay.com) | Europe, Middle East and Africa

[SpecialtyPolymers.Americas@solvay.com](mailto:SpecialtyPolymers.Americas@solvay.com) | Americas

[SpecialtyPolymers.Asia@solvay.com](mailto:SpecialtyPolymers.Asia@solvay.com) | Asia and Australia

Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

Neither Solvay Specialty Polymers nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this product, related information or its use. Some applications of which Solvay's products may be proposed to be used are regulated or restricted by applicable laws and regulations or by national or international standards and in some cases by Solvay's recommendation, including applications of food/feed, water treatment, medical, pharmaceuticals, and personal care. Only products designated as part of the Solviva® family of biomaterials may be considered as candidates for use in implantable medical devices. The user alone must finally determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The information and the products are for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right.

All trademarks and registered trademarks are property of the companies that comprise the Solvay Group or their respective owners.

© 2021 Solvay Specialty Polymers. All rights reserved.