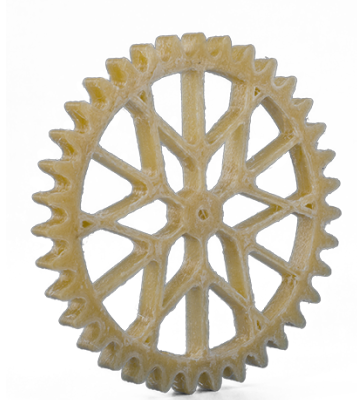


# Mosaic PEKK

## Technical Data Sheet

Compatible with Element HT & Array



### Description

Mosaic PEKK is a high-performance thermoplastic material with exceptional mechanical properties, making it perfect for demanding applications in various industries. It offers several advantages over PEEK and PEI 9085, including improved printability, greater resistance to certain chemicals, and better abrasion resistance. These qualities make it an excellent choice over PEEK and PEI for many applications.

#### Key Features

- ✓ High Chemical Resistance
- ✓ High Mechanical Resistance
- ✓ Very High Thermal Resistance
- ✓ Flame Resistant
- ✓ Great Printability

#### Sample Applications

- ✓ Medical Tools
- ✓ Automotive Parts
- ✓ Chemical Processing
- ✓ Aerospace Components
- ✓ Oil and Gas Tooling

#### Available Colours



Natural

#### Filament Specifications

Diameter	Tolerance
1.75 mm	+/- 0.05 mm

## Printing Guidelines

<b>Slicer Profile</b>	Coming soon to canvas3d.io
<b>Nozzle Temperature</b>	360°C
<b>Heated Chamber</b>	Required
<b>Build Surface</b>	Element Bed Type II with glue stick
<b>Special Considerations</b>	N/A

**Note:** For best results, parts should only be printed one at a time. If more parts are printed at once, the interlayer adhesion becomes significantly weaker.

## Storage/Handling Considerations

<b>Hygroscopicity</b>	High
<b>Drying Temperature</b>	120°C
<b>Drying Time</b>	4 Hours

**Note:** When not in use, spool should be stored in a Mosaic Material Pod or inside a vacuum sealed container.

## Material Properties

<b>Property</b>	<b>Standard</b>	<b>Typical Value</b>
Density	ISO 1183	1.27 g/cc
Tensile Strength, Break	ISO 527	103.04 MPa
Tensile Modulus	ISO 178	2698 MPa
Elongation at Break	DSC	9.52°C
Heat Deflection Temp.	ISO 75 0.45MPa	149.2°C

## Multi-Material Compatibility

### Automation

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Same-material Automated Changeover	With Material Pod
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### Supports

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Same-material support	Yes
Compatible Soluble Materials	None
Compatible Breakaway Materials	Breakaway HT

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Mosaic PEKK  
Safety Data Sheet



**Section 1: Identification**

**Product Identification:**

**Product Name:** Mosaic PEKK  
**Chemical Name:** Polyether Ketone Ketone (PEKK)  
**Recommended Use:** Additive manufacturing

**Supplier Information:**

Mosaic Manufacturing  
403-111 Peter Street, Toronto, Ontario, Canada M5V 2K4  
Phone 647-570-0375  
Email: [info@mosaicmfg.com](mailto:info@mosaicmfg.com)

**Section 2: Hazard(s) Identification**

**Regulation (EC) NO 1272/2008:** Not classified as a dangerous product

**Physical Hazards:** None

**OSHA Regulatory Status:** This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

**Section 3: Composition/Information on Ingredients**

Components	CAS No.	Concentration Range (%)
Polyether ketone ketone polymer	29658-26-2	>99
Additives	N/A	<=1

## Section 4: First-Aid Measures

**Eyes:** Flush with water. Consult a physician if symptoms persist.

**Skin Contact:** Wash with soap and water. For thermal burns from molten polymer, immediately flush with cold water. Do not attempt to remove cooled polymer from the skin. Obtain medical attention.

**Inhalation:** Leave exposed area and seek fresh air. If irritation persists seek medical attention.

**Ingestion:** Not likely due to the nature of the product. If ingested, drink plenty of water. Do not induce vomiting. Consult a physician if symptoms persist.

## Section 5: Fire-Fighting Measures

**Extinguishing Media:** Water spray, dry powder, and foam. Carbon dioxide (CO<sub>2</sub>)

Safety Precautions for Persons exposed to products of combustion should wear NIOSH approved self contained breathing apparatus and full protective equipment.

## Section 6: Accidental Release Measures

**Spill or release:** Clean up by vacuuming or sweeping to prevent falls. If molten, allow material to cool and place into an appropriate container for disposal.

## Section 7: Handling and Storage

**Precautions to be taken in handling and storage:** Store in a dry, sprinkler equipped warehouse. Product as shipped is not a combustible dust. Mechanical handling can cause the formation of dusts. To reduce the risk for dust explosion, avoid dust accumulation.

**Waste Disposal:** Dispose in accordance with applicable federal, state and local regulations.

## Section 8: Exposure Controls/Personal Protection

**Exposure Limits:** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Respiratory Protection:** A NIOSH approved respirator is recommended for protection against processing polymeric fumes, or from dust generated from grinding, sanding, or sawing operations.

**Ventilation:** Local exhaust is preferred.

**Protection Gloves:** Canvas or cotton gloves are recommended.

**Eye Protection:** Safety glasses with side shields are recommended. Other: No protective equipment is needed under normal use conditions.

## Section 9: Physical and Chemical Properties

<b>State:</b>	Solid
<b>Form:</b>	Filament
<b>Color:</b>	Natural
<b>Odor:</b>	None
<b>Freezing Point:</b>	N/A
<b>Solubility in Water:</b>	Insoluble
<b>Specific Gravity:</b>	>1
<b>% Volatile:</b>	N/A
<b>Boiling Range:</b>	N/A
<b>Vapor Pressure (MM HG):</b>	Negligible

**Melting Point:** 300 - 365°C.

**Note:** Those physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

## Section 10: Stability and Reactivity

**Polymerization conditions to avoid:** None

**Chemical Stability:** Stable under normal conditions

**Conditions to avoid:** Incompatible materials, including strong oxidizing agents

**Hazardous decomposition byproducts:** Thermal decomposition can yield intense heat, dense smoke, phenols, hydrogen cyanide, carbon dioxide, and carbon monoxide.

## Section 11: Toxicological Information

No specific toxicological information is available.

## Section 12: Ecological Information

No specific ecological information is available.

## Section 13: Disposal Considerations

**Waste Disposal:** Waste or unused product may be discarded in accordance with state, federal, and local regulations.

## Section 14: Transport Information

<b>Land Transport (DOT):</b>	Non-Regulated
<b>Sea Transport (IMDG):</b>	Non-Regulated
<b>Air Transport (ICAO/IATA):</b>	Non-Regulated

## Section 15: Regulatory Information

<b>TSCA:</b>	Complies
<b>EINECS/ELINCS:</b>	N/A
<b>DSL/NDSL:</b>	Complies
<b>PICCS:</b>	N/A
<b>ENCS:</b>	Complies
<b>IECSC:</b>	Complies
<b>AICS:</b>	Complies
<b>KECL:</b>	Complies

## Section 16: Other Information

Prepared by: Mosaic Manufacturing

Issued: 05/05/2023

Supersedes: N/A

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