# **Mosaic PETG**



# **Technical Data Sheet**

Compatible with Element, Element HT & Array



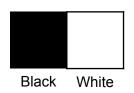
## Description

Mosaic PETG is a highly versatile material that boasts exceptional strength, flexibility, and low shrinkage. It is also odorless and easy to print, making it an ideal choice for a wide range of applications. Its high impact strength makes it suitable for creating durable objects that can withstand harsher environments.

**Key Features** 

- Strong
- Glossy finish
- Excellent surface quality
- Low Shrinkage
- Flexible

**Available Colours** 



**Sample Applications** 

- ✓ Jigs and Fixtures
- Mechanical parts
- Brackets
- Protective casings
- Robotic parts and grippers

### **Filament Specifications**

Diameter	Tolerance
1.75 mm	+/- 0.05 mm

# **Printing Guidelines**

Coming soon to canvas3d.io	
260°C	
Not Required	
Element Bed Type I with glue stick	
N/A	

## **Storage/Handling Considerations**

Hygroscopicity	Moderate
Drying Temperature	65°C
Drying Time	6 Hours

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

# **Material Properties**

Property	Standard	<b>Typical Value</b>
Density	ISO 1183	1.25 g/cc
Tensile Strength, Break	ISO 527	44.30 MPa
Tensile Modulus	ISO 527	1603 MPa
Elongation at break	ISO 527	10.48%
Heat Deflection Temp.	ISO 75 1.8MPa	74.6°C

# Multi-Material Compatibility

### Automation

Same-material Automated Changeover With Material Pod

### Supports

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

# Mosaic PETG Safety Data Sheet



### **Section 1: Identification**

**Product Identification:** 

 Product Name:
 PETG

 Chemical Name:
 Polyethylene Terephthalate Glycol Copolymer (PETG)

 Recommended Use:
 Additive manufacturing

**Supplier Information:** 

Mosaic Manufacturing 403-111 Peter Street, Toronto, Ontario, Canada M5V 2H1 Phone 647-570-0375 Email: <u>info@mosaicmfg.com</u>

### 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 (%)
Polyethylene Terephthalate G	25640-14-6	100

#### **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

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

**Melting Point:** This product does not possess a specific melting point. It softens gradually over a wide temperature range.

**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**

Land Transport (DOT):Non-RegulatedSea Transport (IMDG):Non-RegulatedAir Transport (ICAO/IATA):Non-Regulated

#### **Section 15: Regulatory Information**

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

#### **Section 16: Other Information**

Prepared by: Mosaic Manufacturing

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