SMART3D Materials

PEEK · Technical Data Sheet

General Features

Chemical Name

Polyetheretherketone

Benefits

- Outstanding temperature and chemical resistance
- High strength, including z-layers
- · Flame retardant
- · Cytotoxicity proliferation according EN ISO 10993-1

Filament Charcteristics

Diameter	Ø 1.75mm
Meters per spool	317.368m
Weight per meter	3.15g
Tolerance	±0.05mm

Material Properties

		Typical value	Test Method
Specific gravity	g/cc	1.31	ISO 1183
MFI 380°C/10kg	g/10 min	29	ISO 1133
Tensile strength at yield	MPa	97	ISO 527
Elongation-strain at yield	%	5	ISO 527
Tensile (E) modulus	MPa	3800	ISO 527
Flexural strength	MPa	145	ISO 178
Flexural modulus	MPa	3400	ISO 178
Impact strength charpy method 23°C - notched	kJ/m²	7	ISO 179 1eA
Heat deflection temp.	°C	145	ISO 75
Printing temp.	±25°C	395	Internal method

Chemical Resistance Properties

Acids, Strong (pH 1-3)	Limited
Acids, Weak	Acceptable
Alcohols	Acceptable
Alkalies, Strong (pH 11-14)	Acceptable
Alkalies, Weak	Acceptable
Chlorinated Solvents	Acceptable
Conductive / Static Dissipative	No

Continuous Sunlight	Limited
Hot Water / Steam	Acceptable
Hydrocarbons - Aliphatic	Acceptable
Hydrocarbons - Aromatic	Acceptable
Inorganic Salt Solutions	Acceptable
Ketones, Esters	Acceptable

Disclaimer:

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