AVASPIRE® 621 NT PAEK

Unfilled, FDA Compliant

DESCRIPTION

AvaSpire® 621 NT is a non-reinforced PAEK blend developed to offer improved toughness and strength over non-reinforced PEEK. It bridges the gap between PEEK and Torlon, offering excellent machinability and autoclavability for medical parts and machine components requiring FDA compliance.

TYPICAL APPLICATIONS:

- Surgical instrument handles
- Dental fixtures
- Orthopedic trials
- Valve seats and high temperature sealing components

Material Notes: *AvaSpire 621 NT is well suited for direct food contact or life science applications.*

EXTRUDED SHAPES PROPERTIES

PHYSICAL PROPERTIES	METRIC	IMPERIAL	METHODS
Specific Gravity	1.29 g/cc	0.047 lb/in^3	ASTM D792
Water Absorption	0.2%	0.2%	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	0.6%	0.6%	Immersion; ASTM D570(2)
MECHANICAL PROPERTIES[1]			
Hardness, Rockwell M	90	90	ASTM D785
Hardness, Rockwell R	115	115	ASTM D785
Hardness, Shore D	80	80	ASTM D2240
Tensile Strength, Ultimate	90 MPa	13,250 PSI	ASTM D638
Elongation at Break	30%	30%	ASTM D638
Tensile Modulus	3,450 MPa	500,000 PSI	ASTM D638
Flexural Modulus	3,620 MPa	525,000 PSI	ASTM D790
Flexural Yield Strength	138 MPa	20,000 PSI	ASTM D790
Compressive Strength	124 MPa	18,000 PSI	10% Def.; ASTM D695
Compressive Modulus	3,310 MPa	480,000 PSI	ASTM D695
Izod Impact (notched)	107 J/m	2.0 ft-lbs/in	ASTM D256 Type A
THERMAL PROPERTIES			
Glass Transition Temp./T_g	158° C	316° F	ASTM D3418
Coefficient of Linear Thermal Expansion	5.0 x 10^{-5} C^{-1}	2.8 x 10^{-5} F^{-1}	ASTM E831

[1]The mechanical properties of extruded shapes may differ from the values published by resin producers. Published resin data is always generated from test specimens injection molded under optimum conditions. Drake's extruded shape values are generated using specimens machined from actual shapes and may reflect surface imperfections from machining, enhanced crystallinity as a result of processing, and fiber alignment inherent in all reinforced plastic shapes, regardless of process. For additional information on the effects of fiber alignment, see Drake Fiber Orientation Diagram, available on the Resource page of our website.