

PEI stands for Polyetherimide. It is a high-performance thermoplastic material known for its excellent thermal stability, mechanical strength, and chemical resistance. PEI has a high glass transition temperature, allowing it to maintain its mechanical properties even at elevated temperatures.

Chemical Description

Description	Value
Material Type	Amorphous Thermoplastic
Chemical Name	PEI Polyetherimide
Additives	Unfilled
Color	Amber Transparent
UV Resistant	Yes

Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in ³	0.046
Water Absorption, 24 hrs, Immersion,% by wt.	0.25
Coefficient of Linear Thermal Expansion, x10 ⁻⁵ in./in./°F	3.1
Heat Deflection Temp,°F at 263psi	392
Melting Point Temp,°F	450
Max Continuous Operating Temp,°F	340
Minimum Operating Temp,°F	-58
Flammability Rating,UL94	V-0
Dielectric Strength,V/mil	830
Dielectric Constant at 1 MHz	3.15
Thermal Conductivity,BTU-in/ft ² -hr-°F	0.85

Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength,ksi	15.2
Tensile Modulus,ksi	430
Compressive Strength,ksi	22
Compressive Modulus,ksi	480
Flexural Strength,ksi	22
Flexural Modulus,ksi	480
Elongation at Break	60%
Hardness Shore D	86
Notched Izod Impact Strength,ft-lb/in	1

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.