

PS stands for Polystyrene. It is a versatile thermoplastic polymer that is commonly used in various applications. Polystyrene is known for its transparency, good dimensional stability, and excellent electrical insulation properties. Polystyrene is widely used in packaging materials, disposable utensils, insulation panels, toys, and various consumer products. It can be easily molded, extruded, or foamed to meet specific application

Chemical Description

Description	Value
Material Type	Thermoplastic
Chemical Name	PS Polystyrene
Additives	Unfilled
Color	Transparent
UV Resistant	No

Physical Properties

Property	Maximum Unless Range is Specified
Density,g/cm3	1.05
Water Absorption, 24 hrs, Immersion,% by wt.	<0.1
Coefficient of Linear Thermal Expansion, x10-5 /K	8-10
Heat Deflection Temp,°C under load A/B	78/98
Continuous Service Temp,°C	70
Temp range,°C	-10-70
Flammability Rating,UL94	V-0
Dielectric Strength,kV/mm	155
Dielectric Constant	02.05.16
Thermal Conductivity,W/m*K	0.17

Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength,MPa	16
Elasticity Modulus,MPa	1,500
Yield Strength,MPa	16
Flexural Stress at Given Strain,MPa	39
Elongation at Break	>35%
Notched Izod Impact Strength,kJ/m2	>7
Ball Indentation Hardness,MPa	80

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.