

PS-HP stands for High-Impact Polystyrene. It is a modified form of polystyrene that has been blended with additives to improve its impact resistance. The addition of rubber or elastomeric materials enhances the toughness and durability of the material. PS-HP is commonly used in applications where increased impact resistance is required, such as packaging, consumer goods, and automotive parts.

Chemical Description

Description	Value
Material Type	Thermoplastic
Chemical Name	PS-HP High-Impact Polystyrene
Additives	Rubber or Elastomeric filled
Color	Typically Opaque or Customizable
UV Resistant	No

Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in ³	0.043
Water Absorption, 24 hrs, Immersion,% by wt.	0.01
Coefficient of Linear Thermal Expansion, x10 ⁻⁵ in./in./°F	4.2
Heat Deflection Temp,°F at 263psi	195
Vicat Softening Temp,°F	214
Max Continuous Operating Temp,°F	140
Flammability Rating,UL94	HB
Dielectric Strength,V/mil	45
Dielectric Constant at 1 MHz	2.7

Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength,ksi	4
Tensile Modulus,ksi	260
Compressive Strength,ksi	7.5
Flexural Strength,ksi	8.7
Flexural Modulus,ksi	280
Elongation at Break	55%
Hardness Rockwell L	56
Notched Izod Impact Strength,ft-lb/in	2

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.