

Prime Impax™ 450 (PI450)

Our Prime Impax 450 is our standard thermoforming grade of High Impact Polystyrene. Prime Impax 250 (PI250) would be our medical grade material.

Provides good toughness, stiffness, and impact strength.

Customization

Our PI450 material can be made of FDA compliant polystyrene. Since it is an amorphous thermoplastic material, it is relatively easy to process in extrusion and thermoforming. The mold shrink is .003-.006 in./in. It can be formed on aluminum, ceramic, fiberglass, epoxy, and even wood tools.

PI450 can be color matched to meet your specific requirements through our vertical integration with Primex Color, Compounding & Additives. PI250 is available in natural or white only.

Sustainability

Sustainability includes considering the product's circularity or end of life during the design of the finished product. Prime Impax 450 and Prime Impax 250 is a polystyrene (recycle code 6) that can be recycled as a post-industrial or post-consumer product. Contact your Primex Territory Business Manager or check with local recycling facilities to determine where it is collected and recycled.

Primex Sustainability: A better tomorrow, starting today!



Prime IMPAX™ 450 | Data Sheet

Prime Impax 450 is a formulated High Impact Polystyrene. It provides good toughness, stiffness, and impact strength. It is designed to meet a wide variety of product applications and is one of the most versatile and inexpensive materials we supply.

Applications

Some PI450 applications include signs, credit cards, medical packaging, building products, displays, furniture, and computer products. With a GPPS cap, it is also ideal for wall surrounds, bathtubs, and other interior applications such as cabinet drawer silverware holders.

Finishing

PI450 can be fabricated by drilling, routing, sawing, die and/or laser cut. Mechanical fasteners may be used as well as chemical bonding and sonic welding. We provide PI450 in sheet or roll stock and are capable of holding extremely tight tolerances by either square cutting or slitting.

Colors, Textures, and Capabilities

PI450 is offered in thicknesses of .010-.400 and widths of up to 120". Textures available include; smooth, matte, Seville, RM, HC, Calf Grain, Levant, FL/HC, and even flocked.

Property PI450	Method	Value	Unit
Specific Gravity	D792	1.04	
Melt Flow	D1238	2.5	g/10 min
Flexural Modulus	D790	300,000	psi
Tensile @ Yield	D638	2,900	psi
Elongation @ Break	D638	70	psi
Tensile Modulus	D638	275,000	psi
Notched Izod @ 73°F	D256	2.1	ft-lb/in
HDT @ 264 psi	D648	183	°F
Vicat Softening Point	D1525	210	°F

FDA and UL compliant materials available upon request.

Prime IMPAX 450	Very High	High	Avg.
Impact Strength		*	
Low Temperature Impact Strength			*
Tensile Strength		*	
Flexural Modulus		*	
Heat Deflection Temperature			*