

HIGH IMPACT PLASTIC SHIMS: PROPERTY CHART

<u>MECHANICAL PROPERTY</u>	<u>UNITS</u>	<u>ASTM TEST</u>	<u>HIPS POLYMER</u>
specific gravity	-	D792	1.05
tensile strength, 73°	PSI	D638	8,000-10,000
tensile modulus of elasticity, 73°	PSI	D638	-
tensile modulus of elongation, 73°	%	D638	-
flexural strength, 73°	PSI	D790	10,000-15,000
flexural modulus of elasticity, 73°	PSI	D790	-
shear strength	PSI	D732	-
compressive strength	PSI	D695	5,000-10,000(Yielding)
compressive modulus of elasticity, 73°	PSI	D695	-
coefficient of friction	-	-	-
(dry vs. Steel) dynamic	-	-	-
hardness, rockwell, 73°	-	D785	R110-120
hardness, durometer, 73°	-	D676	D80-85
tensile impact, 73°	Ft.lb.in.2	D1822	-

THERMAL PROPERTY

coefficient of linear thermal expansion	in./in./° F	D696	5.0x10(-5)
deflection temperature: 264 PSI	°F	D648	-
66 PSI	°F	D648	-
melting point	°F	D789	187
continuous service temp in air (maximum)	°F	-	-

ELECTRICAL PROPERTY

dielectric strength short time	volts/mil	D149	700-1,200
volume resistivity	OHM - CM	D257	10
dielectric constant: 60HZ	-	D150	2.55
10/cubed HZ	-	D150	2.55
10/sixth HZ	-	D150	2.55

CHEMICAL PROPERTY

Water absorption immersion: 24 hours	%	D570	0.02-0.03
Acids: Weak 73°			A
Strong 73°			A
Alkalies: Weak 73°			A
Strong 73°			A
Hydrocarbons Aromatic 73°			U
Hydrocarbons Aliphatic 73°			U
Ketones 73°			L
Ethers 73°			L
Esters 73°			L
Alcohols			L
Inorganic Salt Solutions, 73°			L
Continuous Sunlight, 73°			-

KEY

A = ACCEPTABLE SERVICE

L = LIMITED SERVICE

U = UNACCEPTABLE SERVICE