

## CRL HIGH IMPACT PLASTIC SHIMS: PROPERTY CHART

<u>MECHANICAL PROPERTY</u>	UNIT	S	A	<u>STM 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	240,000
tensile modulus of elongation, 73°		%		D638	3
flexural strength, 73°		PSI		D790	10,000-15,000
flexural modulus of elasticity, 73°		PSI		D790	-
shear strength		PSI		D732	7,500-8,000
compressive strength		PSI		D695	-
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)
deformation under load (122°F 2,000 PSI)	%			D621	1.0
deflection temperature: 264 PSI	°F			D648	200-225
66 PSI	°F			D648	-
melting point	°F			D789	187
continuous service temp in air (maximum)	°F			-	140-160

### 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