MC – Moly

PSR Plastics
Components to Industry

Properties

Properties	Item		Method ASTM	Unit	MC-Moly
	Color		-	-	gray-black
	Density		D792	lbs/in^3	0.042
	Water absorption	after 24/96h immersion in water of 73°F	D570	mg	52/98
			D570	%	0.76/1.43
		at saturation in air of 73°F, 50%RH	D570	%	2.4
		at saturation in water of 73°F	D570	%	6.7
Thermal Properties	Melting Temperature		D2133	°F	430
	Thermal conductivity at 73°F		C177	Btu·in/ft^2·h·°F	2.1
	Coefficient of inear thermal expansion	average value btw 73~140°F	D696	in/in/°F	$44 \cdot 10^{-6}$
		average value btw 73~212°F	D696	in/in/°F	$50 \cdot 10^{-6}$
	Temperature of Deflection under load	method A : 264psi	D648	°F	355
	Max. allowable service temp. in air :	for short periods	-	°F	340
		continously : 5,000/20,000h	-	°F	220/195
		Min. service temperature	-	°F	-30
	Flammability	UL94 (3/6mm thickness)	-	-	HB/HB
Mechanical Properties at 73°F	Tension test	tensile stress	D638	psi	11,300
		tensile strain at break	D638	%	25
		tensile modulus of elasticity	D638	psi	479,000
	Compression test	compressive stress at 10% nominal strain	D695	psi	14,000
	Izod impact strength-Notched		D256	ft-lbs/in	0.6
	Rockwell hardness		D785	-	R118
Electrical Properties at 73°F	Electric strength		D149	V/mil	610
	Volume resistivity		D257	Ω·cm	$>10^{14}$
	Surface resistivity		D257	Ω	$>10^{13}$

This table is a valuable help in the choice of a material. The data listed here fall within the normal range of product properties. However, they are not guaranteed and they should not be used to establish material specification limits nor used alone as the basis of design.

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