

Acetal Copolymer

POM (polyoxymethylene)



Principle Physical Properties

Property	Unit	ASTM	Grade						
			FM025	FM090	FM130	FM270	FM350	FM450	FM550
MI Value	g/10min	D1238	2.5	9	13	27	35	45	55
Specific Gravity		D792	1.41	1.41	1.41	1.41	1.41	1.41	1.41
Rockwell Hardness	Mscale	D785	78	80	80	80	80	80	80
ROCKWELL	Rscale	-	-	115	-	-	-	-	-
Flexural Strength	kgf/cm ²	D790	950	950	950	950	950	950	950
Flexural Modulus	kgf/cm ²		26000	26000	26000	26000	26000	26000	26000
Tensile Strength at yield point	kgf/cm ²	D638	610	620	620	620	620	620	620
Tensile Elongation at break point	%		75	60	55	45	40	35	25
Compressive 1% Deformation		D695	320	320	320	320	320	320	320
Stress 10% Deformation	kgf/cm ²		1100	1100	1100	1100	1100	1100	1100
Izod Impact V-notched 23 °C Strength 50%RH	kgf/cm ²	D256	7.6	6.5	6	5.4	5.1	4.5	4.1
Water 23 °C Absorption (69%) RH	%	D570	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Flammability		UL94	HB	HB	-	HB	-	-	-
Mold Shrinkage (3mm ^t , 4in disk)	%		1.8-2.2	1.8-2.2	1.8-2.2	1.8-2.2	1.8-2.2	1.8-2.2	1.8-2.2
Heat Deflection 18.6kgf/cm ²	°C	D648	110	110	110-	110	110	110	110
Temperature 4.6 kgf/cm ²	°C	D648	158	158	158	158	158	158	158
Linear Expansion Factor	cm/cm °C x 10 ⁻⁵	D696	8.45	8.45	8.45	8.45	8.45	8.45	8.45
Melting Point	°C	DSC	165	165	165	165	165	165	165
Vicat Softening Temp.	°C	D1525	162	162	162	162	162	162	162
Volume Resistivity 23 °C 50%RH	Ω.cm	D257	1x10 ¹⁴	1x10 ¹⁴	1x10 ¹⁴	1x10 ¹⁴	1x10 ¹⁴	1x10 ¹⁴	1x10 ¹⁴
Surface Resistivity 23 °C 50%RH	Ω	D257	1x10 ¹⁶	1x10 ¹⁶	1x10 ¹⁶	1x10 ¹⁶	1x10 ¹⁶	1x10 ¹⁶	1x10 ¹⁶

Note: Above data are shown for reference only



Feature and Applications of Grades

Grade	Feature	Application
FM025	High –viscosity Extrusion, Minimal mold	Extruded rods and sheets, other extrusion parts
FM090	Standard-flow Minimal mold	Buttons and press-in fasteners, Plumbing and hardware, Gears, Electronic parts, Automotive parts, household appliances, Bearing, Other injection parts
FM130	Medium-flow Minimal mold	Buttons and press-in fasteners, Zippers, Plumbing and hardware, Gears, Bearing, Electronic parts, automotive parts, Household appliances, Other injection parts
FM270 FM350	High-flow Minimal mold	Press-in fasteners, Zippers, gears, Electronic parts, Automotive parts, household appliances, Other small mechanical parts
FM450 FM550	Superhigh-flow Minimal mold	Press-in fasteners, Zippers, Gears, Electronic parts, Automotive parts, Household Appliances, Other small mechanical parts

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