

FORMOCON® FM090

Technical DataSheet | Supplied by Formosa Plastics

FORMOCON® FM090 is a polyacetal polyoxymethylene (POM) copolymer grade by Formosa Plastics. Exhibits standard flow and minimal mold. FORMOCON® FM090 is designed for injection parts. Used in buttons & press-in fasteners, plumbing & hardware, gears, electronics, minimal mold arts, automotive parts, household appliances and bearings. Complies with UL 94 HB flame rating.

Product Type	POM (Polyacetal, Polyoxymethylene) > POM Copolymer
Physical Form	Pellets
Appearance	Milky white
Product Status	COMMERCIAL
Applications/ Recommended for	Appliances Automotive Electronics / Computers Engineering / manufacturing > Plumbing (pipe/fittings, valve, taps) Gears Injection molding - thermoplastics
Labels/Agency Rating	UL 94 HB flame rated
Key Features	Copolymer Flow, Good

FORMOCON® FM090 Properties

Physical	Value & Unit	Test Condition	Test Method
Melt Mass-Flow Rate (MFR or MFI = Melt Flow Index or MI = Melt Index)	9 g/10 min		ASTM D1238
Water Absorption	0.22 %	23°C, 69% R.H.	ASTM D570
Linear Mold Shrinkage	1.8 - 2.2 %	3 mmt, 4in disk	
Specific Gravity	1.41		ASTM D792

Mechanical	Value & Unit	Test Condition	Test Method
Hardness, Rockwell M	80		ASTM D785
Hardness, Rockwell R	115		ASTM D785
Flexural Strength	950 kgf/cm ²		ASTM D790
Flexural Modulus	26000 kgf/cm ²		ASTM D790
Elongation at Break	60 %		ASTM D638
Compressive Deformation	320 kgf/cm ²	1%	ASTM D695
Compressive Deformation	1100 kgf/cm ²	10%	ASTM D695
Impact Strength, Notched Izod	6.5 kgf/cm ²	23°C, 50% R.H.	ASTM D256
Tensile Strength, Yield	620 kgf/cm ²		ASTM D638

Flammability	Value & Unit	Test Condition	Test Method
Flame Rating, UL 94	HB		UL 94

Thermal	Value & Unit	Test Condition	Test Method
CTE, Linear	8.45x10 ⁻⁵ cm/cm°C		ASTM D696
Heat Deflection Temperature (HDT)	110 °C	18.6 kgf/cm ²	ASTM D648

Heat Deflection Temperature (HDT)	158 °C	4.6 kgf/cm ²	ASTM D648
Melting Point	165 °C		DSC
Vicat Softening Temperature	162 °C		ASTM D1525

Electrical	Value & Unit	Test Condition	Test Method
Volume Resistivity	1 x 10 ¹⁴ ohm-cm	23°C, 50% R.H.	ASTM D257
Surface Resistance	1 x 10 ¹⁶ ohm	23°C, 50% R.H.	ASTM D257
Dielectric Constant	3.8	50 Hz, 1KHz, 1MHz	ISO IEC250
Dielectric Strength	24 kV/mm	2 mm	ASTM D149

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