

# FORMOSACON® FM090

Acetal (POM) Copolymer  
Formosa Chemicals & Fibre Corporation



Prospector

## Product Description

Characteristics: Standard flow, minimal mould

Application: Buttons, electronic parts, automotive parts, household, bearing.

Also known as FORMOCON

## General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	
Features	• Good Flow		
Uses	• Automotive Applications	• Buttons	• Household Goods
	• Bearings	• Electrical/Electronic Applications	
Forms	• Pellets		

## Physical

	Nominal Value Unit	Test Method
Specific Gravity	1.41 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	9.0 g/10 min	ASTM D1238
Molding Shrinkage		ASTM D955
Flow: 3.00 mm	1.8 %	
Across Flow: 3.00 mm	2.2 %	
Water Absorption (Equilibrium, 23°C, 69%RH)	0.22 %	ASTM D570

## Mechanical

	Nominal Value Unit	Test Method
Tensile Strength (Yield)	60.8 MPa	ASTM D638
Tensile Elongation (Break)	60 %	ASTM D638
Flexural Modulus	2660 MPa	ASTM D790
Flexural Strength	93.2 MPa	ASTM D790
Compressive Strength		ASTM D695
1% Strain	31.4 MPa	
10% Strain	108 MPa	

## Impact

	Nominal Value Unit	Test Method
Notched Izod Impact		ASTM D256
23°C	64 J/m	
-	6.4 kJ/m <sup>2</sup>	

## Hardness

	Nominal Value Unit	Test Method
Rockwell Hardness (M-Scale)	80	ASTM D785

## Thermal

	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
0.45 MPa, Unannealed	168 °C	
1.8 MPa, Unannealed	110 °C	
Vicat Softening Temperature	162 °C	ASTM D1626
Melting Temperature	165 °C	DSC
CLTE - Flow	0.000085 cm/cm/°C	ASTM D696

## Electrical

	Nominal Value Unit	Test Method
Surface Resistivity <sup>1</sup>	1.0E+16 ohms	ASTM D267
Volume Resistivity <sup>2</sup> (23°C)	1.0E+14 ohm-cm	ASTM D267

## Flammability

	Nominal Value Unit	Test Method
Flame Rating - UL	HB	UL 94

## Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 60%RH