FORMOCON® FM090

Acetal (POM) Copolymer

Formosa Plastics Corporation

PROSPECTOR®

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Technical Data

Product Description

Characteristics: Standard flow, minimal mould

Application: Buttons and press in fasteners, Plumbing and hardware, Gears, Electronic parts, Automotive parts, Household, Bearing, Other injection parts.

Also known as FORMOSACON

General

Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet - Data Table (English)		
UL Yellow Card [2]	• E173318-226133		
Search for UL Yellow Card	• Formosa Plastics Corporation		
Availability	• Asia Pacific	• Europe	• North America
Features	• Good Flow		
Uses	• Automotive Applications • Bearings	• Buttons • Electrical/Electronic Applications	• Household Goods
Forms	• Pellets		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Specific Gravity	1.41	1.41 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	9.0 g/10 min	9.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.118 in (3.00 mm))	0.018 to 0.022 in/in	1.8 to 2.2 %	ASTM D955
Water Absorption			ASTM D570
Equilibrium, 73°F (23°C), 69%RH	0.22 %	0.22 %	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength (Yield)	8820 psi	60.8 MPa	ASTM D638
Tensile Elongation (Break)	60 %	60 %	ASTM D638
Flexural Modulus	370000 psi	2550 MPa	ASTM D790
Flexural Strength	13500 psi	93.2 MPa	ASTM D790
Compressive Strength			ASTM D695
1% Strain	4550 psi	31.4 MPa	
10% Strain	15600 psi	108 MPa	
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact (73°F (23°C))	1.2 ft·lb/in	64 J/m	ASTM D256
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Rockwell Hardness			ASTM D785
M-Scale	80	80	
R-Scale	115	115	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	316 °F	158 °C	
264 psi (1.8 MPa), Unannealed	230 °F	110 °C	
Vicat Softening Temperature	324 °F	162 °C	ASTM D1525
Melting Temperature	329 °F	165 °C	DSC
CLTE - Flow	4.7E-5 in/in/°F	8.5E-5 cm/cm/°C	ASTM D696
Electrical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Surface Resistivity [4]	1.0E+16 ohms	1.0E+16 ohms	ASTM D257
Volume Resistivity [4] (73°F (23°C))	1.0E+14 ohms·cm	1.0E+14 ohms·cm	ASTM D257
Dielectric Strength (0.0787 in (2.00 mm))	610 V/mil	24 kV/mm	ASTM D149

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Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Dielectric Constant			IEC 60250
50 Hz	3.80	3.80	
1 kHz	3.80	3.80	
1 MHz	3.80	3.80	
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Flame Rating	HB	HB	UL 94

Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

[2] A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

[3] Typical properties: these are not to be construed as specifications.

[4] 50%RH

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Where to Buy

Supplier

Formosa Plastics Corporation
Taipei, Taiwan
Telephone: +886-2-2712-2211
Web: http://www.fpc.com.tw/

Distributor

A. Westensee und Partner Rohstoff GmbH
Telephone: +49-4171-8812-0
Web: http://www.awp-rohstoffe.de/
Availability: Germany

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