

Celcon® M90™
Ticona - Acetal (POM) Copolymer

Unit System: English

[Legend \(Open\)](#)

Actions



General Information

Product Description

Celcon acetal copolymer grade M90™ is a medium viscosity polymer providing optimum performance in general purpose injection molding and extrusion of thin walled tubing and thin gauge film. This grade provides overall excellent performance in many applications.

General

Material Status	<ul style="list-style-type: none"> Commercial: Active
Availability	<ul style="list-style-type: none"> Latin America North America South America
Test Standards Available	<ul style="list-style-type: none"> ASTM ISO ISO 10350
Features	<ul style="list-style-type: none"> Copolymer General Purpose Viscosity, Medium
Uses	<ul style="list-style-type: none"> Film General Purpose Tubing
Forms	<ul style="list-style-type: none"> Pellets
Processing Method	<ul style="list-style-type: none"> Extrusion Extrusion, Film Extrusion, Profile Extrusion, Sheet Injection Molding
Multi-Point Data	<ul style="list-style-type: none"> Isochronous Stress vs. Strain (ISO 11403-1) Isothermal Stress vs. Strain (ISO 11403-1)

ASTM and ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density - Specific Gravity	1.41	sp gr	ASTM D792
Melt Mass-Flow Rate (MFR)	9.0	g/10 min	ASTM D1238
Mold Shrink, Linear-Flow	0.022	in/in	ASTM D955
Mold Shrink, Linear-Trans	0.018	in/in	ASTM D955
Water Absorption Sat/23C	0.75	%	ISO 62
Water Absorption 23C/50RH	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	400000	psi	ISO 527-1, -2
Tensile Strength @ Yield			ASTM D638
(-40 °F)	13700	psi	
(73 °F)	8800	psi	
(160 °F)	5000	psi	
Tensile Stress at Yield ³	9570	psi	ISO 527-1, -2
Tensile Strain at Yield ³	10	%	ISO 527-1, -2
Flexural Modulus (73 °F)	370000	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength (73 °F) ⁴	2.71	ft-lb/in ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
DTUL @264psi - Unannealed	230	°F	ASTM D648
Melting Point	329	°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+14	ohm-cm	ASTM D257

Additional Properties

Density of Melt, Internal Method: 1200 kg/m³
Eff. Thermal Diffusivity, Internal Method: 4.85E-8 m²/s