CELCON® F10-03H

CELCON®

- A stiffness-improved(high-viscosity) grade for general injection molding.
- Features greater stiffness compared to general POM copolymer.

Product information

Resin Identification	POM		ISO 1043
Part Marking Code	>POM<		ISO 11469

Rheological properties

Melt mass-flow rate	3	g/10min	ISO 1133
Melt mass-flow rate, Temperature	374	°F	
Melt mass-flow rate, Load	4.76	lb	
Molding shrinkage, parallel	2.2	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	406000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	9900	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	12	%	ISO 527-1/-2
Nominal strain at break	40	%	ISO 527-1/-2
Flexural modulus	384000	psi	ISO 178
Flexural strength	13100	psi	ISO 178
Charpy notched impact strength, 23°C	3.33	ftlb/in^2	ISO 179/1eA
Charpy notched impact strength, -30°C	3.09	ftlb/in^2	ISO 179/1eA
Poisson's ratio	0.39		

Thermal properties

Melting temperature, 10°C/min	338	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	212	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.67	E-4/°F	ISO 11359-1/-2

Electrical properties

Volume resistivity	1E12	Ohm.m	IEC 62631-3-1
Surface resistivity	1E16	Ohm	IEC 62631-3-2
Electric strength	483	kV/in	IEC 60243-1

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Density	0.0509	lb/in^3	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	212	°F
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	383	°F
Min. melt temperature	356	°F
Max. melt temperature	410	°F

Revised: 2025-07-10 Source: Celanese Materials Database

CELCON® F10-03H

CELCON®

Max. screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	158	°F
Min. mold temperature	140	°F
Max. mold temperature	176	°F
Hold pressure range	8700 - 17400	psi
Hold Pressure Time (h is the max. wall thickness of the part in mm)	$2h^2$-3	s

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
General Motors	GMW22P-POM-C1	
Hyundai	MS237-05 Type E-1	Ulsan, Korea
Hyundai	MS237-14 Type A	Ulsan, Korea
Hyundai	MS941-03 Type M-1	Ulsan, Korea
Mercedes-Benz	DBL5405	Ulsan, Korea
Renault	Ulsan, Korea, No Spec, Special Part Approval, See Your CE Account Manager.	

Characteristics

Processing	Injection Molding, Extrusion, Sheet Extrusion, Other Extrusion
Special characteristics	High viscosity

Revised: 2025-07-10 Source: Celanese Materials Database

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values. Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Other than those products expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.
Copyright © 2026 Celanese or its affiliates. All rights reserved.
Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates.