# CELCON® F20-33

CELCON®

A toughness-improved (medium viscosity) grade for general injection molding.
Features: improved molding cycle, toughness and wear resistance

## Product information

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

## Rheological properties

| | | | |
|---|---|---|---|
| Melt mass-flow rate | 9 | g/10min | ISO 1133 |
| Melt mass-flow rate, Temperature | 374 | °F | |
| Melt mass-flow rate, Load | 4.76 | lb | |
| Molding shrinkage, parallel | 2.0 | % | ISO 294-4, 2577 |

## Typical mechanical properties

| | | | |
|---|---|---|---|
| Tensile modulus | 399000 | psi | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min | 9400 | psi | ISO 527-1/-2 |
| Tensile strain at yield, 50mm/min | 10 | % | ISO 527-1/-2 |
| Nominal strain at break | 33 | % | ISO 527-1/-2 |
| Flexural modulus | 370000 | psi | ISO 178 |
| Flexural strength | 12600 | psi | ISO 178 |
| Charpy notched impact strength, 23°C | 3.09 | ftlb/in² | ISO 179/1eA |
| Charpy notched impact strength, -30°C | 2.62 | ftlb/in² | ISO 179/1eA |

## Thermal properties

| | | | |
|---|---|---|---|
| Melting temperature, 10°C/min | 329 | °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/in³ | 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 |
| Max. screw tangential speed | ≤0.3 | m/s |



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

# CELCON® F20-33

CELCON®

| | | |
|---|---|---|
| Mold Temperature Optimum | 158 | °F |
| Min. mold temperature | 140 | °F |
| Max. mold temperature | 176 | °F |
| Hold pressure range | 8700 - 17400 | psi |
| Hold Pressure Time<br>(h is the max. wall thickness of the part in mm) | $2h^2$-3 | s |
| Back pressure | 290 | psi |

## Automotive

| OEM | STANDARD | ADDITIONAL INFORMATION |
|---|---|---|
| General Motors | GMW22P-POM-C2 | Natural |
| General Motors | GMW22P-POM-C2 | Black |
| Hyundai | MS237-09 Type A | Ulsan, Korea |
| Hyundai | MS237-14 Type A | Ulsan, Korea |
| Hyundai | MS941-03 Type M-1 | Ulsan, Korea |
| Stellantis | MS.50095 | CPN 1532, Natural |
| Stellantis | MS.50095 | CPN 1532, Natural, Korea |

## Characteristics

| | |
|---|---|
| Processing | Injection Molding |

## Additional information

Injection molding

### Processing

mold temperature: 60°C ~ 80°C (140°F ~ 176°F)
barrel temperature: 170°C ~ 210°C (338°F ~ 410°F)
screw speed: 150mm/s ~ 200mm/s
back pressure: max. 20 bar

Processing Notes

### Pre-Drying

It is recommended to dry material at 80°C ~ 90°C (176°F ~ 194°F) for 3h ~ 4h if necessary.
suggest max. moisture: 0.1%



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.