

Polypropylene with 20wt% ash content

Material code according to ISO 1043-1: PP Polypropylene with 20 weight percent ash content, long glass fibers reinforced, Black. Impact modified, copolymer. The fibers are chemically coupled to the polypropylene matrix. The pellets are cylindrical and normally as well as the embedded fibers 10 mm long. Parts molded of CELSTRAN have outstanding mechanical properties such as high strength and stiffness combined with high heat deflection. The notched impact strength is increased at elevated and low temperatures due to the fiber skeleton built in the parts. The long fiber reinforcement reduces creep significantly. The very isotropic shrinkage in the molded parts minimizes the warpage. Complex parts can be manufactured with high reproducibility by injection molding. Application field: Functional/structural parts for automotive

Typical mechanical properties

Tensile Modulus	4300	MPa	ISO 527-1/-2
Stress at break, 5mm/min	76	MPa	ISO 527-1/-2
Strain at break, 5mm/min	2.5	%	ISO 527-1/-2
Flexural Modulus	4400	MPa	ISO 178
Flexural Strength	124	MPa	ISO 178
Charpy notched impact strength, 23°C	20	kJ/m²	ISO 179/1eA
Poisson's ratio	0.35		

Physical/Other properties

Density 1020 kg/m³ ISO 1183

Injection

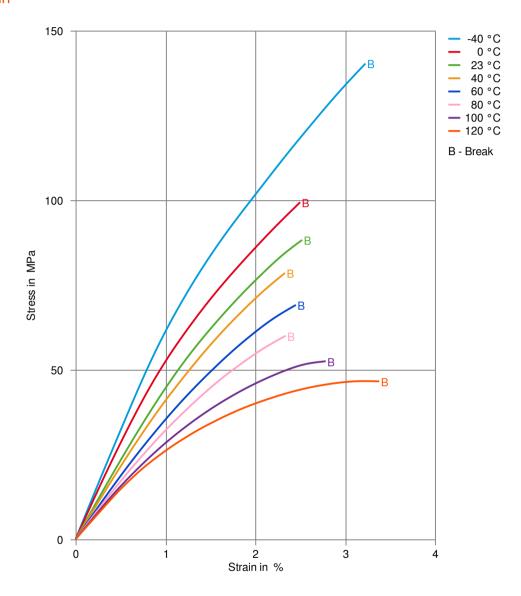
Drying Temperature	90 - 100 °	,C
Drying Time, Dehumidified Dryer	2 h	1
Processing Moisture Content	0.2 %	6
Screw tangential speed	0.1 m	n/s
Max. mould temperature	30 - 70 °	,C
Back pressure	3 M	/Ра
Injection speed	slow	

Printed: 2023-11-16 Page: 1 of 5

Revised: 2023-08-16 Source: Celanese Materials Database



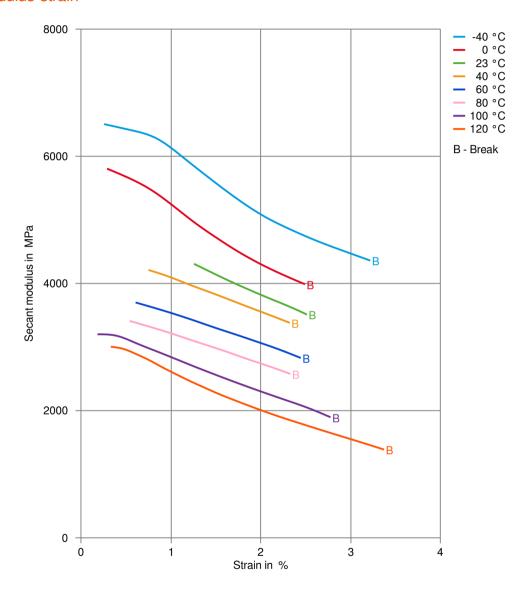
Stress-strain



Printed: 2023-11-16 Page: 2 of 5



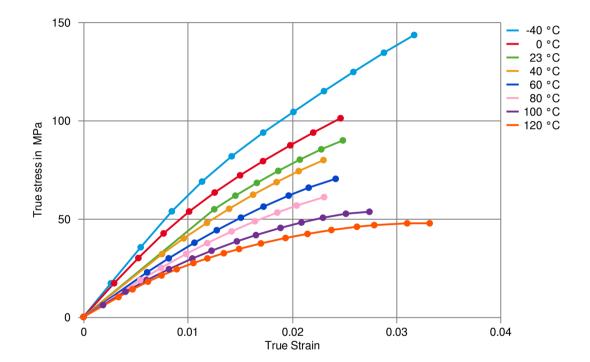
Secant modulus-strain



Printed: 2023-11-16 Page: 3 of 5



True stress-strain



Printed: 2023-11-16 Page: 4 of 5



Processing Texts

Pre-drying

It is normally not necessary to dry CELSTRAN PP. However, should there be surface moisture (condensate) on the molding compound as a result of incorrect storage, drying is required.

MATERIAL HANDLING: The best transfer method for Celstran materials is a typical pneumatic system with a filter, although filterless systems are also available. With any system, smooth inner walls are preferred. Too many turns (recommended to use long radius turns), too small size of conveying pipes (recommended diameter >=2 inches), and too high conveying speed (recommended conveying speed <= 16m/s) will cause excessive loose fibers accumulation and even blockage. We recommend periodic checks and cleaning of the screen filter in the air conveying system to maintain consistent air flow.

Longer pre-drying times/storage

The product can then be stored in standard conditions until processed.

Injection molding Preprocessing

Material Handling: The best transfer method for Celstran materials is a typical pneumatic system with a filter, although filterless systems are also available. With any system, smooth inner walls are preferred. Too many turns (recommended to use long radius turns), too small size of conveying pipes (recommended diameter >=2 inches), and too high conveying speed (recommended conveying speed <= 16m/s) will cause excessive loose fibers accumulation and even blockage. We recommend periodic checks and cleaning of the screen filter in the air conveying system to maintain consistent air flow.

Other Approvals

Other Approvals

OEM	Specification	Additional Information
Evergrande Auto	EGW.PL.1501-PP- LGF20	
Li Auto	Q/LiA5310050	2021 (V2)

Printed: 2023-11-16 Page: 5 of 5

Revised: 2023-08-16 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. Colourants or other additives may cause significant variations in data values. Properties of moulded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design 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, 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 manufac

© 2023 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. Fortron is a registered trademark of Fortron Industries LLC. KEPITAL is a registered trademark of Korea Engineering Plastics Company, Ltd.