CELANEX® 2409MT GF30 (PRELIMINARY)

CELANEX® PBT

Developmental grade. Preliminary datasheet.
Chemical abbreviation according to ISO 1043-1: PBT GF30. Celanex® 2409MT® GF30 is a special grade developed for medical industry applications and is filled with 30% glass fiber

产品信息

树脂鉴别	PBT-GF30		ISO 1043
制品标识码	>PBT-GF30<		ISO 11469

流变性能

熔体体积流动速度	12	cm^3/10min	ISO 1133
温度	250	°C	
负荷	2.16	kg	
模塑收缩率, 平行	0.3	%	ISO 294-4, 2577
模塑收缩率范围, 平行	0.2 - 0.4	%	ISO 294-4, 2577
模塑收缩率, 垂直	0.9	%	ISO 294-4, 2577
模塑收缩率范围, 垂直	0.8 - 1	%	ISO 294-4, 2577

机械性能

拉伸模量	10000	MPa	ISO 527-1/-2
拉伸断裂应力, 5mm/min	155	MPa	ISO 527-1/-2
断裂伸长率, 5mm/min	2.5	%	ISO 527-1/-2
弯曲模量	10000	MPa	ISO 178
弯曲强度	230	MPa	ISO 178
简支梁无缺口冲击强度, 23°C	95	kJ/m^2	ISO 179/1eU
简支梁无缺口冲击强度, -30°C	75	kJ/m^2	ISO 179/1eU
简支梁缺口冲击强度, 23°C	10	kJ/m^2	ISO 179/1eA
简支梁缺口冲击强度, -30°C	10	kJ/m^2	ISO 179/1eA
球压痕硬度, H 961/30	235	MPa	ISO 2039-1

热性能

熔融温度, 10°C/min	225	°C	ISO 11357-1/-3
热变形温度, 1.8 MPa	212	°C	ISO 75-1/-2
热变形温度, 0.45 MPa	224	°C	ISO 75-1/-2
热变形温度, 8.00 MPa	170	°C	ISO 75-1/-2
维卡软化温度, 50°C/h 50N	215	°C	ISO 306
线性热膨胀系数, 平行	30	E-6/K	ISO 11359-1/-2
线性热膨胀系数, 垂直	90	E-6/K	ISO 11359-1/-2

其它性能

吸湿率, 2mm	0.15	%	类似ISO 62
吸水率, 2mm	0.4	%	类似ISO 62
密度	1540	kg/m^3	ISO 1183

CELANEX® 2409MT GF30 (PRELIMINARY)

CELANEX® PBT

注塑

建议干燥	是
干燥温度	130[1] °C
干燥时间，除湿干燥机	2 - 4 h
加工前水分含量	≤ 0.01 %
最优熔体温度	250 °C
最低熔体温度***	240 °C
最高熔体温度	260 °C
螺杆最大切线速度	0.1 - 0.3 m/s
最优模具温度	80 °C
最低模具温度	60 °C
最高模具温度	130 °C
顶出温度	194 °C

[1]: Limits: from 120°C to 140°C

特性

加工方法	注塑

其他信息

注塑

To minimize the volatile content in the final product, dry the resin to <0.02%, preferably ≤0.01% water content. In injection molding, use the lowest possible melt temperature (recommended 250 °C) and shortest feasible residence time (recommended 2-3 minutes). Store the parts in a ventilated, clean area before use. If assistance is needed please contact your Celanese account representative.

These recommendations are based on internal Celanese testing. For drying and injection molding conditions outside the above parameters, customer must test for and verify suitably low volatiles emissions on molded articles to confirm the final product is suitably pure for its intended use.

Preprocessing

To avoid hydrolytic degradation during processing, CELANEX resins have to be dried to a moisture level equal to or less than 0.02%. The drying should be done in a dry-air dryer (dew point < -30°C) with a temperature of 120 to 140 °C and a drying time of 4 to min. 2 hours. In case of longer residence times in the dry-air dryer, the temperature should be reduced to below 80°C.
The time between drying and processing should be kept as short as possible.
The processing machine feed hopper should be closed during the processing operation.

加工注意事项

Pre-Drying

To avoid hydrolytic degradation during processing, CELANEX PBT resins have to be dried to a moisture level to less than 0.02%, preferably equal or less than 0.01%. Drying should be done in a dehumidifying hopper dryer capable of

CELANEX® 2409MT GF30 (PRELIMINARY)

CELANEX® PBT

dewpoints <-40°C (-40°F) at 120°C - 140°C (284°F) for 4 +/- 2 hours.

Storage

For subsequent storage of the material in the dryer until processed (<= 60 h) it is necessary to lower the temperature below 80° C.

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.
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, 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.