

CELSTRAN® PCABS-SF6-05 AF3005 NATURAL

CELSTRAN® Long Fibre

Celstran® PCABS-SF6-05 AF3005 NATURAL is composed of a polycarbonate/ABS polymer matrix with 6 wt% stainless steel fiber. Celstran® long stainless steel fiber filled PC/ABS materials provide electrical conductivity needed to reach desired levels of electrostatic dissipation (ESD) and electromagnetic interference (EMI)/radio frequency interference (RFI) shielding. These materials have significant advantages over short stainless steel fiber filled plastics. Conductivity properties increase by nearly 100 times when comparing to similar loadings. Celstran®PCABS-SF-05 materials contain continuous stainless steel filaments wetted and encapsulated by PC/ABS resin. Various stainless steel loadings can be selected to meet specific end use requirements.

Product information

Resin Identification	(PC+ABS)-LMEF(x)6	ISO 1043
Part Marking Code	>(PC+ABS)-LMEF(x)6<	ISO 11469

Typical mechanical properties

Tensile modulus	2800 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	60 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3.8 %	ISO 527-1/-2
Flexural modulus	2800 MPa	ISO 178
Flexural strength	60 MPa	ISO 178
Izod notched impact strength, 23°C	70 kJ/m ²	ISO 180/1A
Poisson's ratio	0.37 ^[C]	

[C]: Calculated

Thermal properties

Temperature of deflection under load, 1.8 MPa	110 °C	ISO 75-1/-2
RTI, electrical, 1.5mm	60 °C	UL 746B
RTI, impact, 1.5mm	60 °C	UL 746B
RTI, strength, 1.5mm	60 °C	UL 746B

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB class	IEC 60695-11-10
Thickness tested	1.5 mm	IEC 60695-11-10
UL recognition	yes	UL 94

Physical/Other properties

Density	1200 kg/m ³	ISO 1183
---------	------------------------	----------

Characteristics

Processing	Injection Moulding
Special characteristics	Increased electrical conductivity, Static dissipative

CELSTRAN® PCABS-SF6-05 AF3005 NATURAL

CELSTRAN® Long Fibre

Printed: 2025-05-30

Page: 2 of 2

Revised: 2024-01-23 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, 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.

© 2025 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.