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	406000	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	8700	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	3.8	%	ISO 527-1/-2
Flexural modulus	406000	psi	ISO 178
Flexural strength	8700	psi	ISO 178
Izod notched impact strength, 23°C	33.3	ftlb/in²	ISO 180/1A

Thermal properties

Temperature of deflection under load, 1.8 MPa	230	°F	ISO 75-1/-2
RTI, electrical, 1.5mm	140	°F	UL 746B
RTI, impact, 1.5mm	140	°F	UL 746B
RTI, strength, 1.5mm	140	°F	UL 746B

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	0.0591	in	IEC 60695-11-10
UL recognition	yes		UL 94

Physical/Other properties

Density	0.0433	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	230	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.05	%
Melt Temperature Optimum	500	°F
Min. melt temperature	482	°F
Max. melt temperature	518	°F
Max. screw tangential speed	0.1 - 0.2	m/s
Mold Temperature Optimum	185	°F
Min. mold temperature	158	°F
Max. mold temperature	212	°F

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

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Characteristics

Processing	Injection Molding
Special characteristics	Increased electrical conductivity, Anti-static, Static dissipative

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