Celanese
The chemistry inside innovation™

CELSTRAN® PA66-AF35-02 AF3003 NATURAL

CELSTRAN® Long Fibre

Celstran® PA66-AF35-02 is a 35% long aramid fiber Polyamide. This material imparts excellent wear resistance along with impact and modulus properties that can only be achieved through the use of long fiber technology.

Product information

Resin Identification	PA66-LAF35	ISO 1043
Part Marking Code	>PA66-LAF35<	ISO 11469

Typical mechanical properties

Tensile modulus	10300	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	130	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.8	%	ISO 527-1/-2
Flexural modulus	8700	MPa	ISO 178
Flexural strength	200	MPa	ISO 178
Charpy notched impact strength, 23°C	15	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	14	kJ/m²	ISO 180/1A
Poisson's ratio	0.34[C]		

[C]: Calculated

Thermal properties

Temperature of deflection under load, 1.8 MPa	246	°C	ISO 75-1/-2

Physical/Other properties

Density	1220	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	80	°C
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	290	°C
Min. melt temperature	280	°C
Max. melt temperature	305	°C
Screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	110	°C
Min. mould temperature	70	°C
Max. mould temperature	120	°C
Hold pressure range	50 - 100	MPa

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	Heat stabilised or stable to heat, Low wear / Low friction

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Additional information

Injection molding

Preprocessing

PA6&PA66 drying requirements: 4 hrs. @80° C.
A dehumidifier or desiccant dryer is recommended.

Processing

Celstran can be processed on a standard injection molding unit.
A general purpose metering screw is recommended with a zone distribution of 40% feed, 40% transition, and 20% metering.
A free flowing check ring assembly is recommended.

Melt Temp: 305-310°C.
Mold Temp: 85- 95°C.

Processing Notes

Pre-Drying

CELSTRAN PA should in principle be predried. Because of the necessary low maximum residual moisture content the use of dry air dryers is recommended. The dew point should be =< -30°C. The time between drying and processing should be as short as possible.

Storage

Note: Material can be over dried and may discolor.