Celanese
The chemistry inside innovation™

FORTRON® 6345L4 - PPS

Description

Low Wear and Coefficient of Friction; variant of 1342L4
Fortron 6345L4 is 30% glass fiber/high PTFE reinforced injection molding grade. This grade, available in natural color, exhibits improved wear and sliding properties versus 1342L4 product.

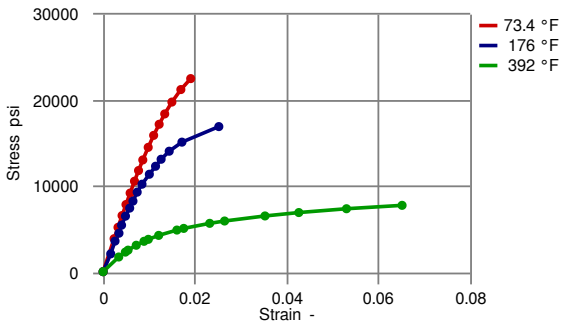
Physical properties	Value	Unit	Test Standard
Density	**104**	lb/ft³	ISO 1183
Molding shrinkage, parallel (flow)	**0.3 - 0.5**	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	**0.6 - 0.9**	%	ISO 294-4, 2577
Humidity absorption, 23°C/50%RH	**0.02**	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile stress at break, 5mm/min	**21800**	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	**1.9**	%	ISO 527-1, -2
Flexural modulus, 23°C	**1.54E6**	psi	ISO 178
Flexural strength, 23°C	**33400**	psi	ISO 178
Izod impact notched, 23°C	**4.28**	ft-lb/in²	ISO 180/1A

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	**500**	°F	ISO 75-1, -2
DTUL at 8.0 MPa	**374**	°F	ISO 75-1, -2

Diagrams

True Stress-strain



Typical injection moulding processing conditions

Pre Drying	Value	Unit
Necessary low maximum residual moisture content	**0.02**	%
Drying time	**3 - 4**	h

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Drying temperature	**266 - 284**	°F

Temperature	Value	Unit
Hopper temperature	**68 - 86**	°F
Feeding zone temperature	**140 - 176**	°F
Zone1 temperature	**554 - 572**	°F
Zone2 temperature	**590 - 608**	°F
Zone3 temperature	**626 - 644**	°F
Zone4 temperature	**626 - 644**	°F
Nozzle temperature	**590 - 626**	°F
Melt temperature	**626 - 644**	°F
Mold temperature	**284 - 320**	°F
Hot runner temperature	**626 - 644**	°F

Pressure	Value	Unit
Back pressure max.	**30**	bar

Speed	Value
Injection speed	**fast**

Screw Speed	Value	Unit
Screw speed diameter, 25mm	**120**	RPM
Screw speed diameter, 40mm	**75**	RPM
Screw speed diameter, 55mm	**50**	RPM

Other text information

Pre-drying

FORTRON 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.

Longer pre-drying times/storage

For subsequent storage the material should be stored dry in the dryer until processed (<= 60 h).

Characteristics

Special Characteristics	Wear resistant
Product Categories	Specialty, Tribological
Processing	Injection molding