

SKX-9057 - PPS

Description

PPS, 50% GF/MF reinforced, impact modified and heat shock resistant
 Fortron 6150T4 is a 50% glass-fiber and mineral reinforced grade with improved impact and heat shock resistance.

Physical properties	Value	Unit	Test Standard
Density	104	lb/ft ³	ISO 1183
Molding shrinkage, parallel (flow)	0.3	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	0.5	%	ISO 294-4, 2577
Water absorption, 23°C-sat	0.07	%	Sim. to ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile stress at break, 5mm/min	23900	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	1.7	%	ISO 527-1, -2
Flexural modulus, 23°C	2.1E6	psi	ISO 178
Flexural strength, 23°C	36500	psi	ISO 178
Charpy impact strength, 23°C	23.8	ft-lb/in ²	ISO 179/1eU
Charpy notched impact strength, 23°C	4.76	ft-lb/in ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	536	°F	ISO 11357-1/-3
DTUL at 1.8 MPa	518	°F	ISO 75-1, -2

Electrical properties	Value	Unit	Test Standard
Volume resistivity, 23°C	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity, 23°C	>1E15	Ohm	IEC 62631-3-2
Electric strength, 23°C (AC)	635	kV/in	IEC 60243-1
Comparative tracking index CTI M	Group IIIa	-	IEC 60112

Typical injection moulding processing conditions

Pre Drying	Value	Unit
Drying time	3 - 4	h
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

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

Pre-drying conditions: Fortron should, in principle, be pre-dried. Because of the necessary low maximum residual moisture content, the use of dry air dryers is recommended. The dew point should be ≤ -30 deg. C. the time between drying and processing should be as short as possible.

Characteristics

Product Categories	Impact modified, Mineral/Glass reinforced
Processing	Injection molding

General Disclaimer

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. Colorants or other additives may cause significant variations in data values. Properties of molded 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. 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. The products mentioned herein are not intended for use in medical or dental implants.

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