InElec® PA612CF40HS

Material Status Commercial: Active

Availability Africa & Middle East, Asia Pacific, Europe, Latin America, North America

Filler / Reinforcement Carbon Fiber, 30% Filler by Weight

Additive Heat Stabilizer

Features Electrically Conductive, Electromagnetic Shielding (EMI), ESD Protection, Filled, Good Dimensional Stability, Heat Stabilized, High Stiffness, High Strength, Permanent Antistatic, Radio Frequency Shielding (RFI)

Uses Closures, Connectors, Consumer Applications, Electrical/Electronic Applications, Engineering Parts, Household Goods, Industrial Applications, Industrial Parts, Office Automation Equipment, Outdoor Applications

Forms Pellets

Processing Method Injection Molding

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.28	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.10 to 0.20	%	ASTM D955
Water Absorption (24 hr)	0.12	%	ASTM D570

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	24500	MPa	ASTM D638
Tensile Strength	230	MPa	ASTM D638
Tensile Elongation (Yield)	1.0 to 3.0	%	ASTM D638
Flexural Modulus	20700	MPa	ASTM D790
Flexural Strength	341	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	100	J/m	ASTM D256
Unnotched Izod Impact	800	J/m	ASTM D4812

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	218	°C	

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+2 to 1.0E+6	ohms	ASTM D257

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Polyamide 6/12 Copolymer

Injection	Nominal Value	Unit
Drying Temperature	79	°C
Drying Time	4.0	hr
Processing (Melt) Temp	266 to 277	°C
Mold Temperature	93	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	40 to 70	rpm

Notes

[1] Typical properties: these are not to be construed as specifications.