HYDEL® PC-7

Polycarbonate

Ensinger Inc.

Message:

Hydel®PC-7 ESD Polycarbonate is a static dissipative thermoplastic product containing graphic Fibril™ nanotubes. Unlike conventional carbon fibers, this technology allows for good dimensional stability after machining, outstanding toughness, consistent electrical properties, excellent surface quality, and minimal sloughing. Hydel®PC-7 is available in rod, slab, tubular bar, and profiles.

General Information	
Filler / Reinforcement	Carbon nano filler
Features	Good dimensional stability Excellent appearance Good toughness
Uses	Electrical/Electronic Applications Aerospace applications Military application
Forms	Bar Thick sheet Profile

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.22	g/cm³	ASTM D792
Water Absorption (23°C, 24 hr)	0.15	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale, 23°C)	120		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2300	MPa	ASTM D638
Tensile Strength (Break)	62.1	MPa	ASTM D638
Tensile Elongation (Break)	8.0	%	ASTM D638
Flexural Modulus	2340	MPa	ASTM D790
Flexural Strength	74.5	MPa	ASTM D790
Compressive Strength	84.8	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	64	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	138	°C	ASTM D648
Continuous Use Temperature	127	°C	
CLTE - Flow (-54 to 121°C)	6.7E-4	cm/cm/°C	ASTM E831

Electrical	Nominal Value	Unit	Test Method
Static Decay	20	msec	FTMS 101C 4046.1
Surface Resistance [1]			
@ 100V	1.0E+7 - 1.0E+9	ohms	
@ 10V	1.0E+7 - 1.0E+10	ohms	
Volume Resistance [2]			
@ 100V	1.0E+7 - 1.0E+9	ohms	
@ 10V	1.0E+7 - 1.0E+10	ohms	

Additional Information
Residual Voltage: 0VData obtained from extruded shapes material.

NOTE	
1.	EOS/ESD S11.11
2.	ESD-STM 11.12

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

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