CELCON® ET-20R3 BK

CELCON®

- A CNT filled high-viscosity grade for general extrusion molding (rods, plates, sheets, etc.)
- Suitable for applications requiring surface resistivity 10^3 Ohm
- Cautions: Surface resistivity will change with extrusion conditions: die design, pressure, seeed, etc.

Product information

Resin Identification	POM-CD4		ISO 1043
Part Marking Code	>POM-CD4<		ISO 11469

Rheological properties

Melt mass-flow rate	0.3	g/10min	ISO 1133
Melt mass-flow rate, Temperature	374	°F	
Melt mass-flow rate, Load	4.76	lb	

Typical mechanical properties

Tensile stress at yield, 50mm/min	8000	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	6	%	ISO 527-1/-2
Flexural modulus	363000	psi	ISO 178
Flexural strength	10900	psi	ISO 178
Charpy notched impact strength, 23°C	1.66	ftlb/in²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	329	°F	ISO 11357-1/-3

Flammability

Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.0315	in	IEC 60695-11-10

Electrical properties

Surface resistivity	1000	Ohm	IEC 62631-3-2

Physical/Other properties

Density	0.0495	lb/in³	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	212	°F
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	383	°F
Min. melt temperature	356	°F
Max. melt temperature	410	°F
Max. screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	158	°F
Min. mold temperature	140	°F
Max. mold temperature	176	°F
Hold pressure range	8700 - 17400	psi

Revised: 2025-01-23 Source: Celanese Materials Database

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Hold Pressure Time (h is the max. wall thickness of the part in mm)	$2h^2$-3 s

Characteristics

Processing	Injection Molding, Extrusion
Special characteristics	Increased electrical conductivity

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