

PRO-BLK 10

RIGID HEAT-RESISTANT

Applications - motor housings, connectors, snap-fits, automotive interior and other general-use parts

Production-grade additive manufacturing material with game-changing thermoplastic-like mechanical properties and long-term environmental stability



Benefits

- Improved environmental stability of mechanical
- and performance properties over time
- Fast throughput for part-in-hand with no secondary thermal cure required
- Simple, single solvent cleaning
- Excellent surface quality and repeatability
- Accurate, low distortion material for fast first article print success



Applications

- Tool-less, same day production
- Direct production of small black plastic parts; examples include motor housings, connectors, snap-fits, automotive interior and other general-use parts
- Digital production to replace injection moulding or soft tooling processes

Physical Properties

Colour	Black
Type	ABS/PC

Mechanical Properties

		TEST/ISO
Solid Density	1.16 g/cm ³	ASTM D792
Tensile Strength (MPa)	63 MPa	ASTM D638
Tensile Modulus (MPa)	2320 MPa	ASTM D638
Elongation at Break (%)	12	ASTM D638
Elongation at Yield (%)	4.7	ASTM D638
Flexural Strength (MPa)	92	ASTM D790
Flexural Modulus (MPa)	2290	
Notched Izod Impact Strength (J/m)	24	ASTM D256
Unnotched Izod Impact Strength (J/m)	614	ASTM D256
Heat Deflection Temperature (°C)		
@ 0.455 MPA	70°C	ASTM D648
@ 1.82 MPA	56°C	
Shore Hardness	79D	ASTM D2240
24hr Water Absorption (%)	1.16	ASTM D570

Thermal

Tg (DMA, E")	62 °C	ASTM E1640
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Electrical

Dielectric Strength (V/mil) @ 3.0 mm thickness	19.3	ASTM D149
Dielectric Constant @ 1 MHz	3.17	ASTM D150
Dissipation Factor @ 1 MHz	0.012	ASTM D150
Volume Resistivity (ohm-cm)	2.6x10 ¹⁵	ASTM D257

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