

RedEye On Demand PC/ABS for FDM Rapid Prototyping

Category : Polymer , Rapid Prototyping Polymer , Thermoplastic , ABS Polymer , Polycarbonate/ABS Alloy, Unreinforced , Polycarbonate (PC)

Material Notes:

This thermoplastic polymer blend combines PC (Polycarbonate) and ABS (Acrylonitrile Butadiene Styrene) to produce an industrial material with a lot to offer. It combines the strength of PC with the flexibility of ABS. With excellent heat-resistance and mechanical properties, it is significantly stronger than ABS. PC/ABS parts are built with a layered manufacturing process utilizing Fused Deposition Modeling (FDM) technology, often used in rapid prototyping. Parts produced from this technology will maintain dimensional stability. Applications PC/ABS is an affordable option where strength and rigidity are necessary in conjunction with toughness and temperature tolerance. It produces parts with good surface appeal. This blend is widely used in industries such as automotive, electronics, toys and telecommunications. Parts built from PC/ABS can also be used as masters for RTV molds and vacuum forming, vacuum metallization, electroplating, and parts that require snap fits. When used in FDM, this blend is ideal for the rapid production of prototypes, tooling and rapid manufacturing of production parts in lieu of injection molding. Rapid (or layered) manufacturing provides multiple benefits: High design iterations – while in production the design engineer has the freedom to modify geometry's on the fly which cannot be done once you have committed to tooling. Bridge manufacturing – with rapid manufactured parts, production can begin while permanent tooling is on order. Jigs and Fixtures to be used on manufacturing/production lines. For those manufacturers who practice lean manufacturing techniques or who maintain just-in-time inventories, RM can conserve cash flow. Alpha and beta product releases – manufacturers can produce accurate, durable products even in the earliest stages of production.

Order this product through the following link:

http://www.lookpolymers.com/polymer_RedEye-On-Demand-PCABS-for-FDM-Rapid-Prototyping.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.20 g/cc	1.20 g/cc	ASTM D792

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	110	110	
Tensile Strength, Yield	34.8 MPa	5050 psi	ASTM D638
Elongation at Break	4.3 %	4.3 %	ASTM D638
Tensile Modulus	1.827 GPa	265.0 ksi	ASTM D638
Flexural Yield Strength	50.0 MPa	7250 psi	ASTM D790
Flexural Modulus	1.863 GPa	270.2 ksi	ASTM D790
Izod Impact, Notched	1.23 J/cm	2.30 ft-lb/in	ASTM D256
Izod Impact, Unnotched	3.26 J/cm	6.10 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
	73.8 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	41.0 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	

CTE linear Thermal Properties	Metric @ Temperature 20.0 °C	English @ Temperature 68.0 °F	Comments
Deflection Temperature at 0.46 MPa (66 psi)	110 °C	230 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	96.0 °C	205 °F	ASTM D648
Vicat Softening Point	112 °C	234 °F	ASTM D1525
Glass Transition Temp, Tg	125 °C	257 °F	DMA (SYSS)
Flammability, UL94	HB @Thickness 0.850 mm	HB @Thickness 0.0335 in	

Electrical Properties	Metric	English	Comments
Dielectric Constant	3.0 @Frequency 1e+6 Hz	3.0 @Frequency 1e+6 Hz	IEC 60250
	3.1 @Frequency 1000 Hz	3.1 @Frequency 1000 Hz	IEC 60250
Dielectric Strength	35.0 kV/mm	889 kV/in	IEC 60112

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China