

P165-ABS

P r o d u c t D e m o n s t r a t i o n



■ Material Overview

ABS is a thermoplastic polymer material with 10% glass fibers, featuring high gloss, high rigidity, and easy processing and molding. It has strong corrosion resistance to acid, alkali and salt, and the addition of glass fibers improves its strength, stiffness, heat resistance and dimensional stability. It has excellent mechanical properties and dimensional stability and can be used to manufacture sculptures.

The good discharging state is: bubble-free and glossy particle diameter: about 3mm
Applicable model: FGF-800Pro, FGF-1200Pro, FGF-1800Pro, FGF-2420Pro, FGF-2435Pro

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Product Information

Manufacturer:

Guangdong Kings intelligent manufacturing co., ltd.

Other certificates:

REACH

Material identification:

>ABS<

Color:

ORIGINAL

Material shape:

granulate

Processing method:

3D printing

Flame retardant rating:

HB

Up to specification:

• UL

Material characteristics:

• High gloss • High rigidity • Medium impact • General grade

Material use:

• General • Sculpture

Technical Datasheet

Physical Property	Testing Standards	Data	Unit
Specific gravity 23°C	ASTM D792	1.12	g/cm ³
Specific gravity 23°C	ISO 1183	1.12	g/cm ³
Melt index 220°C 10kg	ASTM D1238	16.6	g/10min
Melt index 220°C 10kg	ISO 1133	16.6	g/10min
Melt index 200°C 5kg	ASTM D1238	2.4	g/10min
Melt index 200°C 5kg	ISO 1133	2.4	g/10min

Hardness	Testing Standards	Data	Unit
Rockwell hardness R scale 23°C	ASTM D785	110	/
Rockwell hardness R scale 23°C	ISO 2039	110	/

Mechanical Character	Testing Standards	Data	Unit
Tensile strength 23°C	ASTM D638	565	kg/cm ²
Tensile strength 23°C	ISO 527	40.21	MPa
Bending strength 23°C	ASTM D790	735	kg/cm ²
Bending strength 23°C	ISO 178	76	MPa
Bending modulus 23°C	ASTM D790	24800	kg/cm ²
Bending modulus 23°C	ISO 178	2330	MPa
The notch impact of cantilever beam is 23 °C 6.4 mm.	ASTM D256	24	kg-cm/cm
The notch impact of cantilever beam is 23 °C 6.4 mm.	ISO 180	210	J/m

Hot Property	Testing Standards	Data	Unit
The thermal deformation temperature is 1.8 MPa and 120 °C/r 6.4mm	ASTM D648	84.2	°C
The thermal deformation temperature is 1.8 MPa and 120 °C/r 6.4mm	ISO 75	84.2	°C
Thermal deformation temperature annealing 1.8MPa 120°C/r 6.4mm	ASTM D648	73	°C
Thermal deformation temperature annealing 1.8MPa 120°C/r 6.4 mm	ISO 75	73	°C
Vicat softening temperature 50N.	ASTM D1525	78	°C
Vicat softening temperature 50N.	ISO 306	78	°C

Flame Retardation	Testing Standards	Data	Unit
Fire protection grade panchromatic 1.0mm	UL94	HB	/
Fire protection grade panchromatic 1.6mm	UL94	HB	/
Fire protection grade panchromatic 3.0mm	UL94	HB	/

UL	Testing Standards	Data	Unit
Fire rating color 1.0mm	UL94	HB	/
Fire protection grade panchromatic 1.6mm	UL94	HB	/
Fire rating panchromatic 3.0mm	UL94	HB	/
HWI panchromatic 1.0mm	UL 746A	4	PLC
HWI panchromatic 1.6mm	UL 746A	4	PLC
HWI panchromatic 3.0mm	UL 746A	2	PLC
HAI panchromatic 1.0mm	UL 746A	0	PLC
HAI panchromatic 1.6mm	UL 746A	0	PLC
HAI panchromatic 3.0mm	UL 746A	0	PLC
Rtilec panchromatic 1.0mm	UL 746B	65	/
Rtilec panchromatic 1.6mm	UL 746B	92	/
Rtilec panchromatic 3.0mm	UL 746B	92	/
RTI Imp panchromatic 1.0mm	UL 746B	58	/
RTI Imp panchromatic 1.6mm	UL 746B	83	/
RTI Imp panchromatic 3.0mm	UL 746B	83	/
RTI Str panchromatic 1.0mm	UL 746B	65	/
RTI Str panchromatic 1.6mm	UL 746B	92	/
RTI Str panchromatic 3.0mm	UL 746B	92	/
CTI	IEC 60112	0	PLC
HVTR	UL 746A	0	PLC
Arc resistance	ASTM D495	6	PLC