

TECHNICAL DATA

P185-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 structure with high strength, good toughness and easy processing and molding. It has strong corrosion resistance to acidalkali and salt, and can also tolerate the dissolution of organic solvents to a certain extent. It has excellent mechanical properties and dimensional stability and can be used to manufacture and use molds.

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

Shenzhen Kings 3D Co., Ltd

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■ Product Information

Manufacturer:

Shenzhen Kings 3D Co., Ltd

Other certificates:

REACH

Material identification:

>ABS<

Color:

natural color

Material shape:

granular

Processing method:

3D printing

Flame retardant grade:

HB

Compliance with regulations:

UL

Material Properties:

●High Gloss ●High Rigidity ●Medium Impact ●General Purpose

Material Application:

●General purpose ●Sculpture

■ Technical Datasheet

Physical Properties	Test Standard	Data	Unit
Specific gravity	23°C ASTM D792	1.04	g/cm ³
Specific gravity	23°C ISO 1183	1.04	g/cm ³
Melt index 220°C 10kg	ASTM D1238	23	g/10min
Melt index 220°C 10kg	ISO 1133	23	g/10min
Melt index 220°C 10kg	GB/T 3682	54.2	g/10min
Melt index 220°C 5kg	ASTM D1238	23	g/10min
Melt index 220°C 5kg	ISO 1133	23	g/10min
Hardness	Test Standard	Data	Unit
Rockwell hardness R scale 23°C	ASTM D785	110	/
Rockwell hardness R scale 23°C	ISO 2039	110	/
Mechanical Properties	Test Standard	Data	Unit
Tensile strength 23°C	ASTM D638	545	kg/cm ²
Tensile strength 23°C	ISO 527	55	MPa
Tensile strength 50mm/min	GB/T 1040	34.74	MPa
Bending strength 23°C	ASTM D790	750	kg/cm ²
Bending strength 23°C	ISO 178	66	MPa
Flexural modulus 23°C	ASTM D790	25000	kg/cm ²
Flexural modulus 23°C	ISO 178	2350	MPa
Notched izod impact 23°C 6.4mm	ASTM D256	25	kg-cm/cm
Notched izod impact 23°C 6.4mm	ISO 180	220	J/m
Notched izod impact strength 23°C	GB/T 1843	16.4	kJ/m ²
Elongation at break 50 mm/min	GB/T 1040	26.71	%

Thermal Properties	Test Standard	Data	Unit
Heat deflection temperature without annealing 1.8MPa 120°C/r 6.4mm	ASTM D648	87	°C
Heat distortion temperature without annealing 1.8MPa 120°C/r 6.4mm	ISO 75	87	°C
Heat distortion temperature Annealing 1.8MPa 120°C/r 6.4mm	ASTM D648	95	°C
Heat distortion temperature Annealing 1.8MPa 120°C/r 6.4mm	ISO 75	95	°C
Heat deflection temperature (HDT) 0.45 MPa	GB/T 1634	60.8	°C
Vicat softening temperature 50N	ASTM D1525	92	°C
Vicat softening temperature 50N	ISO 306	92	°C

Flame Retardancy	Test Standard	Data	Unit
Fire rating full color 1.0mm	UL94	HB	/
Fire rating full color 1.6mm	UL94	HB	/
Fire rating full color 3.0mm	UL94	HB	/

UL	Test Standard	Data	Unit
Fire rating color 1.0mm	UL94	HB	/
Fire rating full color 1.6mm	UL94	HB	/
Fire rating full color 3.0mm	UL94	HB	/
HWI all colors 1.0mm	UL 746A	4	PLCs
HWI all colors 1.6mm	UL 746A	4	PLCs
HWI all colors 3.0mm	UL 746A	2	PLCs
HAI all colors 1.0mm	UL 746A	0	PLC
HAI all colors 1.6mm	UL 746A	0	PLC
HAI all colors 3.0mm	UL 746A	0	PLC
RTI elec all colors 1.0mm	UL 746B	60	/
RTI elec all colors 1.6mm	UL 746B	96	/
RTI elec all colors 3.0mm	UL 746B	96	/
RTI imp all colors 1.0mm	UL 746B	60	/
RTI imp all colors 1.6mm	UL 746B	85	/
RTI imp all colors 3.0mm	UL 746B	85	/
RTI str all colors 1.0mm	UL 746B	60	/
RTI str all colors 1.6mm	UL 746B	96	/
RTI str all colors 3.0mm	UL 746B	96	/
CTI	IEC 60112	0	PLC
HVTR	UL 746A	0	PLC
Arc resistance	ASTM D495	6	PLC