TECHNICAL DATA SHEET

Prima Creator Select ABS Metal-Shine

Product code:	Revision Number:	Revision date:	TDS No.:
Select ABS Metal-Shine	04	13/01/2022	KT014

Characteristic:

Surface effect|metallic lustre| easy polishing

IDENTFICATION OF THE MATERIAL	
Trade name	Select ABS Metal-Shine
Chemical name	Acrylonitrile-butadiene-styrene terpolymer
Use	3D Printing
Origin	Prima Creator

GUIDELINE FOR PRINT SETTINGS	
Nozzle temperature	220~250℃
Bed temperature	80~100℃
Bed modification	Tape or glue
Active cooling fan	0-50%
Layer height	0.2mm
Shell thickness	≥0.8mm
Print speed	40-80mm/s

Settings are based on a 0.4mm nozzle.

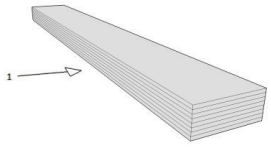
MATERIAL PROPERTIES		Test Method
Melt temperature	~190℃	ISO 11357
Melt flow rate (MFR) [1]	30~40g/10min	ISO 1133
Heat deflection temperature(HDT) [2]	75℃	ISO 75
Vicat softening temperature(VST) [3]	91℃	ISO 306
density	1.05~1.07g/cm^3	ISO 1183
Odor	Odorless	/
Solubility	Insoluble in water	/

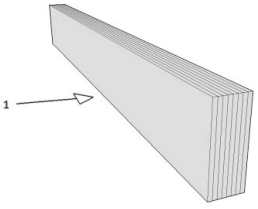
1.test conditions: T= 220℃; m= 10kg.

2. test conditions:0.45MPa;120℃/h.

3. test conditions:10N; 120℃/h.

MECHANICAL PROPERTIES|TENSILE TEST	Test Method ISO 527
All test specimens were printed using an FlashForge Guider 2s under the following conditions： Printing temperature: 250℃ Heated bed temperature：100℃ Print speed：50mm/s Shell thickness：1.2mm Infill under 45°	
	Printed horizontal X,Y-axis
Infill	100%
Tensile strength（Mpa）	34~37
Elongation at break（%）	2~4
Emodulus（Mpa）	3400~4000

MECHANICAL PROPERTIES|IMPACT TEST	Test Method ISO 179
The same conditions as tensile test. 1→impact direction	
Infill	100%
Impact strength（KJ/m^2）	22~28
Notch impact strength[1]（KJ/m^2）	6~10

MECHANICAL PROPERTIES |FLEXURAL TEST	Test Method ISO 178
The same conditions as tensile test. 1→bending direction	
Infill	100%
Maximum force（Mpa）	70~80
Flexural modulus（Mpa）	3000~3600

1. notch type: type A

FILAMENT SPECIFICATION		Test Method
Diameter 1.75mm	1.75±0.03mm	EX1125
Diameter 2.85mm	2.85±0.03mm	EX1125
Diameter 3.00mm	3.00±0.03mm	EX1125
Max roundness deviation（1.75）	0.03mm	EX1125
Max roundness deviation（2.85）	0.03mm	EX1125
Max roundness deviation（3.00）	0.03mm	EX1125
Net weight on reel	1kg	EX1125