



FusRock® FDM Printing Material Technical Data Sheet

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FusFlex™ PEBA 95A

一款 95A 硬度的 PA12 弹性体柔性 3D 打印材料

A flexible 3D printing material made of PA12 elastomer with 95A hardness

产品介绍

Product Description

FusFlex™ PEBA 95A 是一款易于打印的尼龙弹性体材料。相比 TPU 柔性材料具有低密度，高回弹率，更好的耐低温性能和耐化学品性能。

FusFlex™ PEBA 95A is an easily printable nylon-based elastomer. It exhibits lower density, higher elasticity, improved low-temperature performance, and enhanced chemical resistance compared to TPU flexible materials.

产品亮点

Product Advantages

- 高回弹性 Energy Return

FusFlex™ PEBA 95A 具有出色的回弹性，回弹率相比 FusFlex™ TPU95A-HF 提高了 3 倍。

FusFlex™ PEBA 95A delivers exceptional rebound performance, with a 3× higher rebound rate compared to FusFlex™ TPU95A-HF.

- 低密度 Light Weight

FusFlex™ PEBA 95A 同等打印件重量相比 FusFlex™ TPU95A-HF 降低 12%。

FusFlex™ PEBA 95A offers a 12% weight reduction in printed components versus FusFlex™ TPU95A-HF for comparable printed structures.

产品详情

Available

颜色 Color: 白色 White/ 黑色 Black

线径 Diameter: 1.75mm

净重 Net Wet: 220g, 500g, 800g



物性表

Material Properties

测试项目 Property	测试方法 Testing method	典型值 Typical value
密度 Density	ISO 1183	1.01 g/cm ³
硬度 Hardness	ISO 7619	95A
熔融指数 Melt index	235°C, 2.16kg	30 g/10min
维卡软温度 Vicat softening temperature	ISO 306	90.9 °C
回弹性 Bayshore rebound	ASTM D2632	70 %
拉伸断裂强度 (X-Y) Tensile breaking strength (X-Y)	ISO 527	21.45±0.77 MPa
拉伸模量 (X-Y) Tensile modulus (X-Y)		78.50±7.57 MPa
断裂伸长率 (X-Y) elongation at break (X-Y)		767.40±19.40 %
100%定伸应力 (X-Y) tensile stress at 100% (X-Y)		8.15±0.11 MPa
200%定伸应力 (X-Y) tensile stress at 200% (X-Y)		8.69±0.12 MPa
300%定伸应力 (X-Y) tensile stress at 300% (X-Y)		9.41±0.16 MPa
缺口冲击强度 (X-Y) Charpy impact strength at +23°C	ISO 179	未冲断 Non-break
缺口冲击强度 (X-Y) Charpy impact strength at -30°C		未冲断 Non-break

试样打印参数: 喷嘴大小 0.4mm, 喷嘴温度 240°C, 底板加热 100°C, 打印速度 60mm/s, 填充率 100%, 填充角度±45°

Specimens printed under the following conditions: Nozzle size 0.4mm, Nozzle temp 240°C, Bed temp 100°C, Print speed 60mm/s, Infill 100%, Infill

angle ±45°



建议打印参数

Recommended printing conditions

喷头温度 Nozzle temperature	230-260 °C
建议喷嘴大小 Recommended nozzle diameter	≥0.2 mm
建议底板材质 Recommended build surface	玻璃, PEI 膜或 PC 膜 Glass, PEI Film or PC Film
底板温度 Build plate temperature	60-100 °C
Raft 间距 Raft separation distance	0.18-0.22 mm
冷却风扇 Cooling fan speed	On
打印速度 Print speed	30-120 mm/s
回抽距离 Retraction distance	0.4-1 mm
回抽速度 Retraction speed	1800-3600 mm/min

其他建议:

Additional Suggestions:

1. PEBA 材料暴露在空气中容易吸收水分, 吸湿后打印会出现拉丝, 挤出有气泡, 打印表面粗糙等现象, 降低打印质量。建议您打开 **FusFlex™ PEBA 95A** 真空铝箔袋包装后立即将线材放入干燥盒内 (湿度控制在 15% 以下) 进行打印。不用的线材请放回原包装铝箔袋内密封保存。

PEBA material is very easy to absorb moisture when exposed to air, and printing after absorbing moisture will result ozzing, extruding with bubbles and rough surface appearance, thus reducing print quality. It is recommended that put the filament into a dry box (humidity below 15%) immediately after opening the **FusFlex™ PEBA 95A** vacuum foil bag for printing. Please put the unused filament back into the original aluminum foil bag for sealed storage.

2. 材料受潮后会出现打印拉丝增多, 挤出有气泡, 打印表面质量粗糙等现象。请将线材放入 **70-75°C** 烘箱内

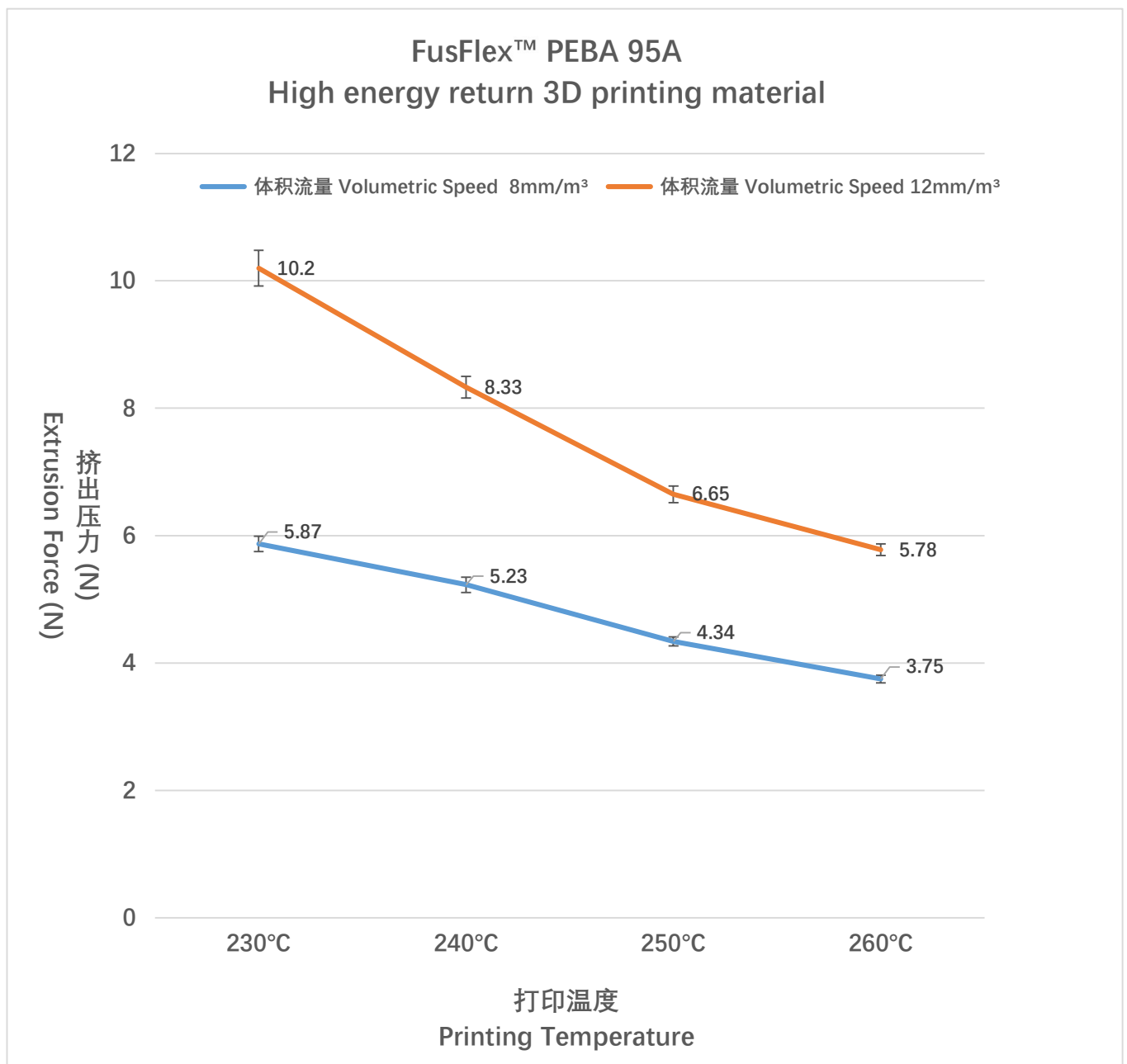


干燥 4-6h, 即可恢复 FusFlex™ PEBA 95A 的打印质量。

After the material is damp, there will be more printing oozing, bubbles extruded and rough printing surface. Please dry the filament in an oven at 70-75°C for 4-6h to restore the printing quality of FusFlex™ PEBA 95A

挤出压力与打印流量速度测试

Extrusion Force vs Print Volumetric Speed Test



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