



eSUN 3D Printing Material Datasheet

| 3D 打印线条材料 Filament Type | 打印温度 Print Temp(°C) | 底板温度 Bed Temp(°C) | 密度 Density (g/cm³) | 热变形温度 Heat Distortion Temp(°C,0.45MPa) | 熔融指数 Melt Flow Index (g/10min) | 拉伸强度 Tensile Strength (MPa) | 断裂伸长率 Elongation at Break(%) | 弯曲强度 Flexural Strength (MPa) | 弯曲模量 Flexural Modulus (MPa) | 悬臂梁冲击强度 IZOD Impact Strength (KJ/m²) |
|----------------------------|------------------------|----------------------|--------------------------|--|--------------------------------------|--------------------------------------|------------------------------------|---------------------------------------|--------------------------------------|--|
| PLA | 190-220 | 60-80 | 1.25 | 56 | 5 (190°C/2.16KG) | 65 | 8 | 97 | 3600 | 4 |
| PLA+ | 190-220 | 60-80 | 1.25 | 52 | 4 (190°C/2.16KG) | 65 | 12 | 75 | 2102 | 8.5 |
| ABS | 220-260 | 90-110 | 1.04 | 78 | 12 (220°C/10KG) | 43 | 22 | 66 | 2348 | 19 |
| ABS+ | 220-260 | 90-110 | 1.06 | 73 | 15 (220°C/10KG) | 40 | 30 | 68 | 2443 | 42 |
| eABS MAX | 220-260 | 90-110 | 1.05 | 85 | 60 (220°C/10KG) | 45 | 30 | 58 | 2400 | 48 |
| eASA | 220-260 | 90-110 | 1.00 | 54 | 10-15 (220°C/10KG) | 50 | 30 | 35 | 4300 | 19 |
| HIPS | 220-260 | 90-110 | 1.05 | 80 | 3 (200°C/5KG) | 27 | 55 | 39 | 2280 | 11 |
| PETG | 190-220 | 60-80 | 1.23 | 64 | 6.6 (230°C/2.16KG) | 49 | 280 | 60 | 1170 | 7.6 |
| PVA (水溶) | 190-210 | 60-80 | 1.25 | / | / | 22 | 360 | / | / | / |
| ePVA+ (快速水溶) | 190-210 | 60-80 | 1.14 | / | / | 26 | 190 | / | / | / |
| eSmooth (乙醇抛光) | 190-220 | 60-80 | / | 63.5 | 4-6 (190°C/2.16KG) | 46 | 273 | 71 | 2799 | 4 |
| Wood (木塑) | 190-220 | 60-80 | 0.7 | 45 | 7 (190°C/2.16KG) | 45 | 17 | 57 | 2017 | 9.3 |
| eBamboo (竹线条) | 190-220 | 60-80 | 1.20 | 48 | 6-14 (190°C/2.16KG) | 28 | 10 | 35 | 2000 | 4 |
| Color Change (变色) | 190-220 | 60-80 | 1.24 | 58 | 10 (190°C/2.16KG) | 65 | 5 | 97 | 3600 | 4 |
| eClean (清洁) | 160-300 | / | 0.95 | 45 | / | 23 | 580 | / | / | 29 |
| Bronze (青铜) | 190-220 | 60-80 | 1.27 | 50 | 62 (190°C/2.16KG) | 66 | 16 | 106 | 4442 | 4 |
| eCopper (红铜) | 190-220 | 60-80 | 2.46 | 52 | 20 (190°C/2.16KG) | 40 | 4 | 64 | 4954 | 4 |
| eAl-fill (铝) | 190-220 | 60-80 | 1.48 | 52 | 8 (190°C/2.16KG) | 45 | 5 | 74 | 4885 | 4 |
| eSteel (不锈钢) | 190-220 | 60-80 | 2.46 | 52 | 14 (190°C/2.16KG) | 45 | 5 | 63 | 4452 | 5 |
| ePA (尼龙) | 230-260 | 80-90 | 1.12 | 50 | 5 (230°C/2.16KG) | 57 | 196 | 57 | 1495 | 15 |



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| ePA-CF (碳纤增强尼龙) | 230-260 | 80-90 | 1.24 | 120 | 6 (250°C/5KG) | 85 | 16 | 98 | 2300 | 15.5 |
| ePA-GF (玻纤增强尼龙) | 230-260 | 80-90 | 1.35 | 120 | 7 (250°C/5KG) | 101 | 17 | 160 | 4300 | 8 |
| ePC (聚碳酸酯) | 230-260 | 80-90 | 1.12 | 80 | 5 (230°C/2.16KG) | 57 | 196 | 57 | 1495 | 15 |
| eFlex (柔性 TPU) | 210-240 | No Heat | 1.12 | / | / | 52 | 500 | / | / | / |
| eLastic (柔性 TPE) | 210-240 | No Heat | 1.14 | / | / | 32 | 420 | / | / | / |
| eTPU-98A | 210-240 | No Heat | 1.15 | / | / | 49 | 520 | / | / | / |
| eMate (低温 PCL) | 70-100 | ≤40 | 1.16 | 45 | 0.5 (70°C/2.16KG) | 18 | >800 | 13 | 345 | 不断 Don't break |
| ePeek | 380-450 | 90-150 | 1.30 | 152 | 10 (380°C/5KG) | 100 | 40 | 170 | 3500 | 7 |
| eSilk-PLA | 190-220 | 60-80 | 1.43 | 67 | 2.5 | 58 | 300% | 75 | 4000 | 4 |
| eTwinkling | 190-220 | 60-80 | 1.41 | 67 | 2.5 | 58 | / | 70 | 2100 | 4 |
| eMarble | 190-220 | 60-80 | 1.24 | 67 | | | | | | |
| eTPU-95A | 210-240 | No Heat | 1.43 | | | | | | | |