



Addigy[®] F1030

Fused Filament Fabrication



Addigy® F1030 is a pure polyamide 6/66 that is easy to print, suitable for durable applications requiring good mechanical properties.

Addigy® F1030 for fused filament fabrication (FFF) produces parts almost indistinguishable from those produced with standard injection molding. The open system filament material is a pure polyamide 6/66 and the base material was originally developed by Covestro Engineering Materials experts for demanding specialty applications often subjected to harsh environments and high temperatures (up to 125°C).

Optimized to 3D print easily, **Addigy® F1030** brings a unique combination of properties, including outstanding stiffness and ductility, across a range of applications – from transportation, to sports and electronics. The optimized crystallization profile improves fusion, enabling parts with excellent interlayer strength and high surface quality.

Key Benefits

- Easy to print polyamide filament
- Great starter material
- Optimized for ductility and strength
- Suitable for harsh environments and temperatures up to 125°C
- Good mechanical properties
- Colors: available in natural, green, black and white
- Diameters: 2.85 and 1.75

Ideal Applications

- Electronics – Benchtop assembly jigs, custom parts specific storage
- Transportation
- Sports & lifestyle

Technical Data

| Mechanical properties (injection molded) | Dry / Cond | Unit | Test Method |
|--|-------------|-------------------|--------------|
| Tensile modulus | 2,330 / 440 | MPa | ISO 527-1/-2 |
| Yield stress | 72 / 31 | MPa | ISO 527-1/-2 |
| Yield strain | 4.5 / 24 | % | ISO 527-1/-2 |
| Stress at break | 42 / 46 | MPa | ISO 527-1/-2 |
| Strain at break | >50 / >50 | % | ISO 527-1/-2 |
| Charpy impact strength (+23°C) | N / – | kJ/m ² | ISO 179/1eU |

| Thermal properties | Dry / Cond | Unit | Test Method |
|--------------------------------|------------|------|----------------|
| Melting temperature (10°C/min) | 200 / * | °C | ISO 11357-1/-3 |

| Thermal properties (injection molded) | Dry / Cond | Unit | Test Method |
|---|------------|------|-------------|
| Temp. of deflection under load (1.80 MPa) | 51 / * | °C | ISO 75-1/-2 |
| Temp. of deflection under load (0.45 MPa) | 84 / * | °C | ISO 75-1/-2 |

| Rheological properties | Dry / Cond | Unit | Test Method |
|---------------------------------------|------------|-------------------------|-------------|
| Melt volume-flow rate (230°C/2.16 kg) | 2.3 | cm ³ /10 min | ISO 1133 |
| Melt flow index MFI (230°C/2.16 kg) | 2.6 / * | g/10 min | ISO 1133 |

| Other properties | Dry / Cond | Unit | Test Method |
|---------------------|------------|-------------------|----------------|
| Water absorption | 13 / * | % | Sim. to ISO 62 |
| Humidity absorption | 3.8 / * | % | Sim. to ISO 62 |
| Density | 1,120 / - | kg/m ³ | ISO 1183 |

These values may vary and depend on individual machine processing and post-curing practices.

[More information at am.covestro.com](https://www.am.covestro.com)



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¹Please see the "Guidance on Use of Covestro Products in a Medical Application" document.
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