Addigy® F3040

Fused Filament Fabrication

covestro

Addigy® F3040 is a pure PET filament for higher temperatures, dimensional stability, outstanding strength and with excellent processing characteristics.

Addigy® F3040 is one of very few pure PET (polyethylene terephthalate) on the market and used to create everything from white goods connectors to automotive sensors. This open source filament material has a higher melting point and lower moisture intake than traditional PETG filaments, enabling more accurate 3D printed parts at higher temperatures with low warpage and better strength and mechanical properties. **Addigy® F3040** also offers good fusion and interlayer strength with great surface qualities. Parts can be coated or painted easily and can withstand weathering and moisture well.

Key Benefits

- Open-source pure PET filament
- High heat resistance
- High dimensional stability
- Outstanding strength
- Excellent processing characteristics

Ideal Applications

- Transportation – lighting frames, brake booster body valves, wipers
- Electronics - white good connectors, fog lamp housings
- Sports & Lifestyle applications

Technical Data

Mechanical properties (injection molded)	Value	Unit	Test Method
Tensile modulus	2,350	MPa	ISO 527-1/-2
Yield stress	56	MPa	ISO 527-1/-2
Yield strain	4	%	ISO 527-1/-2
Stress at break	27	MPa	ISO 527-1/-2
Strain at break	>50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	N	kJ/m²	ISO 179/1eU

Mechanical properties	Value	Unit	Test Method
Tensile modulus (3D printed: X–X direction, flat)	2,570	MPa	Sim. to ISO 527-1/-2
Tensile modulus (3D printed: Z–X direction, upright)	3,040	MPa	Sim. to ISO 527-1/-2
Stress at yield (3D printed: X–X direction, flat)	60	MPa	Sim. to ISO 527-1/-2
Strain at yield (3D printed: X–X direction, flat)	3.3	%	Sim. to ISO 527-1/-2
Stress at break (3D printed: X–X direction, flat)	40	MPa	Sim. to ISO 527-1/-2
Stress at break (3D printed: Z–X direction, upright)	45	MPa	Sim. to ISO 527-1/-2
Strain at break (3D printed: X–X direction, flat)	150	%	Sim. to ISO 527-1/-2
Strain at break (3D printed: Z–X direction, upright)	2.2	%	Sim. to ISO 527-1/-2

Thermal properties	Value	Unit	Test Method
Melting temperature (10°C/min)	255	°C	ISO 11357-1/-3

Thermal properties (injection molded)	Value	Unit	Test Method
Temp. of deflection under load (1.80 MPa)	65	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	71	°C	ISO 75-1/-2

Other properties	Value	Unit	Test Method
Water absorption	0.9	%	Sim. to ISO 62
Humidity absorption	0.5	%	Sim. to ISO 62
Density	1,340	kg/m³	ISO 1183

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

More information at am.covestro.com

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