

FDM Nylon-CF10



What is FDM Nylon-CF10?

- FDM® Nylon-CF10 is a strong carbon fiber-filled material that is stiff and chemically resistant¹. Available on the F190™CR and F370®CR.

Challenges customers have with current solutions:

- Long lead times
- Bulky and heavy fixtures
- Inaccurate fixtures
- Easily broken fixtures
- High replacement costs

FDM Nylon-CF10 offers:

- The ability to replace machined jigs and fixtures quickly
- Upgraded, lightweight, convenient designs made possible by FDM Nylon-CF10's high strength-to-weight ratio
- Soluble support for geometrically complex designs
- Solid parts with consistent print reliability

Material Properties

Mechanical – XZ Orientation

Tensile Strength (peak)	10,034 psi (69.1 MPa)
Tensile Elongation @ break	4.74%
Flexural Strength	17,940 psi (123.7 MPa)
IZOD Impact, Notched	3.79 ft*lb/in (202.7 J/m)

Mechanical – ZX Orientation

Tensile Strength (peak)	3684 psi (25.4 MPa)
Tensile Elongation @ break	2.41%
Flexural Strength	5751 psi (39.7 MPa)
IZOD Impact, Notched	0.68 ft*lb/in (36.4 J/m)

Thermal

Heat Deflection @ 264 psi (XY)	52 °C (126 °F)
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¹ Determined by test ASTM D 543 Practice A Procedure II

Common Industries:

- Service bureaus
- Machine shops
- Transportation: Aerospace, Automotive, Rail
- Industrial equipment

Applications:

- Metal forming dies
- Press brakes
- End effectors
- Soft jaws
- Alignment and assembly fixtures
- Clamping tools
- Drill guides

Part Number	Description
333-90450	FDM Nylon-CF10 90 cu. in.
333-63500	QSR Soluble Support Canister, F123, 60 cu. in.
123-00602-S	F123CR Hardened Head for FDM Nylon-CF10
123-00303-S	F190CR Build Tray, Standard
123-00304	F370CR Build Tray, Standard

