



Preliminary Product Data Sheet

IROPRINT F 80112

POLYESTER-BASED THERMOPLASTIC POLYURETHANE FILAMENT (TPU)

PRODUCT DESCRIPTION

IROPRINT F 80112 is a polyester-based Thermoplastic Polyurethane (TPU) for Fused Filament Fabrication (FFF). Key features are high elasticity, abrasion resistance, cut and scratch resistance and good low temperature performance. IROPRINT F 80112 is the softest filament in our range.

MAIN APPLICATIONS

Footwear, hoses and gaskets, robotic grippers, seals and other applications that need to be soft and elastic, yet strong and tough. Cushioning and resilient lattice structures

TYPICAL PROPERTIES

Properties	NORM	Value XY	Value Z	Unit
Hardness (after 3 sec.)	ISO 7619	73		Shore A
Hardness (after 3 sec.)	ISO 7619	23		Shore D
Tensile strength	DIN 53504	26	19	MPa
Elongation @ break	DIN 53504	610	490	%
Abrasion	ISO 4649	48		mm ³
Density	ISO 1183-1	1.102		g/cm ³
Tear strength	ISO 34-1	71	45	N/mm
Compression set at 70h @ 23°C	ASTM D 395	25		%

Print parameters	NORM	Value	Unit
Nozzle temperature		232	°C
Bed temperature		20-80	°C
Print speed		30-50	mm/s
Extrusion multiplier (Flow)		1.8	
Fan speed		100	%
Nozzle diameter		0.4	mm



HEALTH & SAFETY ADVICE

Before undertaking any trials with this product, it is essential that all personnel are aware of the necessary precautions that must be taken. These are detailed in the relevant Safety Data Sheet, which will be provided by HUNTSMAN.

SUPPLY & STORAGE

Diameters: 1.75 mm ± 0.1 mm
2.85 mm ± 0.1 mm
Spool Size: 16 Spools per box, approximately 1 kg per spool. Other packaging types might be available on request.
Each spool is boxed individually and vacuum packed with desiccant.

IROPRINT F 80112 has an expected shelf life of minimum 12 months after shipment date. The product should be stored in a dry and cool place in the manufacturer's original packaging.

MATERIAL PREPARATION

3 hours at 70–80 °C in dehumidified air.
Dew point: –30 °C

Recommended for Direct Drive printers

PHYSICAL FORM

Type: TPU Filament

Release date: October 3, 2019

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