



Preliminary Product Data Sheet

IROPRINT F 80213

POLYESTER-BASED THERMOPLASTIC POLYURETHANE FILAMENT (TPU)

PRODUCT DESCRIPTION

IROPRINT F 80213 is a polyether-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. Being polyether-based, it offers a good hydrolysis resistance. IROPRINT F 80213 stands out in our range for delivering prints with a mat finish, resulting in a high-quality touch and feel of the final object.

MAIN APPLICATIONS

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

TYPICAL PROPERTIES

Properties	NORM	Value XY	Value Z	Unit
Hardness (after 3 sec.)	ISO 7619	85		Shore A
Hardness (after 3 sec.)	ISO 7619	35		Shore D
Tensile strength	DIN 53504	29	10	MPa
Elongation @ break	DIN 53504	590	320	%
Abrasion	ISO 4649	82		mm ³
Density	ISO 1183-1	1.004		g/cm ³
Tear strength	ISO 34-1	90	26	N/mm
Compression set at 70h @ 23°C	ASTM D 395	24		%

Print parameters	NORM	Value	Unit
Nozzle temperature		245	°C
Bed temperature		20-80	°C
Print speed		10-100	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 80213 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 on Direct Drive printers
and approved Bowden System printers

PHYSICAL FORM

Type: TPU Filament

Release date: October 3, 2019

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