

# DuPont™ Hytrel® 3D4100FL NC010

## High Performance Material for 3D Printing

### Developmental Data

#### Product Information

Hytrel® 3D4100FL NC010 is a thermoplastic elastomer material in filament form for fused filament fabrication.

Material Specific Properties	Value	Unit	Test Standard
Density	1.25	g/cm <sup>3</sup>	ISO 1183
Melting Temperature, 10°C/min	165	°C	ISO 11357-1/-3
Vicat Softening Temperature, 50°C/h, 10N	130	°C	ISO 306
Hardness, Shore D (max)	60	-	ISO 868

Typical Properties of Printed Parts	Flat	Vertical	Unit	Test Standard
Tensile Stress at Break	≥ 20	17	MPa	ISO 527 (Type 1BA)
Tensile Stress at 10% Strain	10	10	MPa	ISO 527 (Type 1BA)
Tensile Stress at 50% Strain	14	13	MPa	ISO 527 (Type 1BA)
Nominal Strain at Break	≥ 250	≥ 250	%	ISO 527 (Type 1BA)
Tensile Modulus	130	130	MPa	ISO 527 (Type 1A)
Izod Impact - Notched	No Break	8	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact - Unnotched	No Break	15	kJ/m <sup>2</sup>	ISO 180/1U

The above data are for the developmental sample and are subject to change.

DuPont Hytrel® 3D4100FL is capable of being printed on a variety of printers in a variety of configurations. Different printers, slicing and/or printing configurations, test conditions, ambient environments, etc. may give different results.

Reported above are typical results obtained from test parts prepared using the following direct-drive printer settings: Nozzle Temperature: 215-230°C; Bed Temperature: 110°C; Printing Speed: 20 mm/sec; Cooling Fan: 100%; Infill: 100% Diagonal Line; Flow: 100%; Retraction Speed: 10 mm/sec; Retraction Distance: 1 mm; Printing Orientation: Flat and Vertical.

Test specimens were conditioned for >40 h at 23°C and 50% relative humidity prior to testing. The tests were then run under these same conditions.

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