

## TECHNICAL DATA SHEET

# TECHNYL A 205F NC

TECHNYL A 205F NC is an unreinforced polyamide 66 for injection moulding. This grade offers two main advantages: excellent filling qualities and UL 94 V2 under 0.4 mm. It is particularly suitable for the moulding of long parts with thin wall sections

### General

Feature	Fast molding cycle	
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS EC 1907/2006 (REACH)	UL-Yellow Card European Railways Certifications EN 45545-2
Applications	Connectors Electrical/Electronic Applications home & office furniture PC / laptop / tablet	Consumer good application Fasteners Industrial Applications
Colors available	Black Grey	Natural White
Forms	Pellets	

### Product identification

ISO 1043 abbreviation	PA66
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#### Condition

#### Standard

#### Unit

#### Value

### Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.14
Water absorption	24 hr, 23°C	ISO 62	%	1.3
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.7
Molding shrinkage, normal		ISO 294-4, 2577	%	1.7

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3200 / 1400
Stress at break		ISO 527-1/-2	MPa	60 / 40
Strain at break		ISO 527-1/-2	%	50 / 250
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	3000 / 1300
Flexural modulus, ASTM D790	2 mm/min	ASTM D790	MPa	3350 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	120 / 50
Flexural strength, ASTM D790	2 mm/min	ASTM D790	MPa	125 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	5 / 10
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	5 / 8


### Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	263
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	205
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	65

### Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	5E+015
Comparative tracking index	Solution A	IEC 60112	V	600
CTI performance level category		Sol A		PLC 0
Dielectric strength	1 mm	IEC 60243-1	kV/mm	22

### Burning behaviour

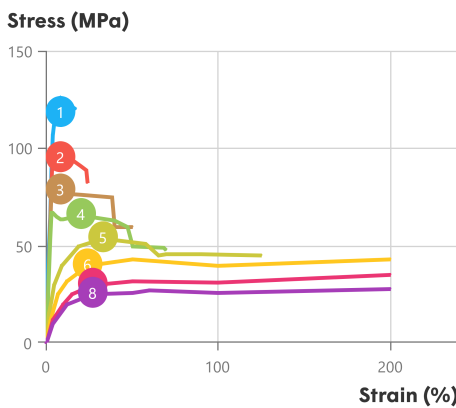
UL Yellow Card availability 	Click here to have access to the UL Yellow Card → <a href="#">QMFZ2.E44716</a>			
Flammability, 0.40 mm	0.40 mm	UL 94		V2
Flammability, 0.75 mm	0.75 mm	UL 94		V2
Flammability, 1.5 mm	1.5 mm	UL 94		V2
Flammability, 3.0 mm	3.0 mm	UL 94		V2
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	800
Oxygen index			%	28

\*: conditioned according to ISO 1110

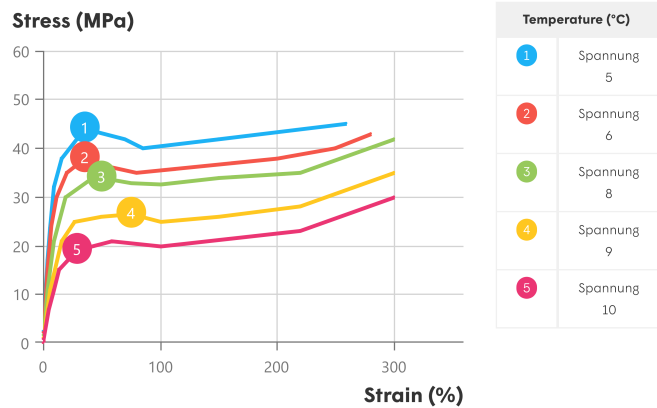
## Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	265 - 275 °C
Middle temperature	270 - 280 °C
Front temperature	280 - 285 °C
Recommended mould temperature	60 - 80 °C

Stress-strain, dry



Stress-strain, conditioned



## Injection notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.

## Injection advice

For unfilled polyamides, Domo recommends the use of high alloy steel with a low chromium content. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.

## Disclaimer

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