

## TECHNICAL DATA SHEET

# TECHNYL C 216 V30 BK Z/4

TECHNYL C 216 V30 BK Z/4 is a polyamide 6, reinforced with 30% of glass fibre, for injection moulding. This grade has good mechanical properties and offering an excellent combination between thermal and mechanical properties.

### General

Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS EC 1907/2006 (REACH)	UL-Yellow Card
Applications	Automotive Applications	Handles
Colors available	Black Grey	Natural
Forms	Pellets	

### Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30,M1,S14-090

### Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.36
Water absorption	24 hr, 23°C	ISO 62	%	1.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.25
Molding shrinkage, normal		ISO 294-4, 2577	%	0.75

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9600 / 6200
Stress at break		ISO 527-1/-2	MPa	175 / 110
Strain at break		ISO 527-1/-2	%	3.4 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8700 / 5300
Flexural modulus, ASTM D790	2 mm/min	ASTM D790	MPa	8000 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	280 / 150
Flexural strength, ASTM D790	2 mm/min	ASTM D790	MPa	235 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	80 / 100
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	10 / 18
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	9 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	9 / 19

### Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	222
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	205

### Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+014

### Burning behaviour

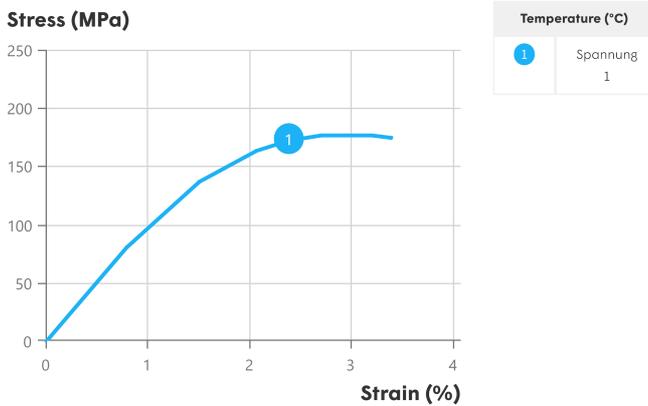
UL Yellow Card availability 	Click here to have access to the UL Yellow Card → <a href="#">QMFZ2.E44716</a>			
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	650
Oxygen index			%	23

\*: conditioned according to ISO 1110

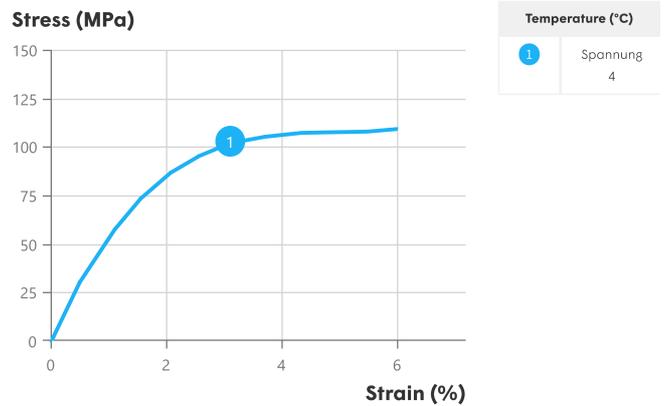
## Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	230 - 235 °C
Middle temperature	235 - 240 °C
Front temperature	240 - 250 °C
Recommended mould temperature	60 - 90 °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 reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 / 1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 / 1.2379 (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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