

## TECHNICAL DATA SHEET

# TECHNYL C 216F GY P423C XB

(Previously DOMAMID S 6 GYP423CXB)

Polyamide 6, for fast cycling injection moulding, for injection moulding

### General

Feature	UL V2	For fast cycling injection moulding
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	UL-Yellow Card

### Product identification

ISO 1043 abbreviation	PA6
ISO 16396 designation	PA6,M1,S14-030

	Condition	Standard	Unit	Value
<b>Physical properties</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.14
Water absorption	24 hr, 23°C	ISO 62	%	10
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.8 - 1
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1.1
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	145

### Mechanical properties


				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3100 / 950
Strain at break	50 mm/min	ISO 527-1/-2	%	40 / 50
Yield stress	50 mm/min	ISO 527-1/-2	MPa	80 / 45
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2700 / 850
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	100 / 35
Charpy impact strength, +23°C	+23°C	ISO 179/1eU		NB / NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	5 / 25
Izod impact strength, +23°C	+23°C	ISO 180/1U		NB / NB
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	4.5 / 25
Rockwell hardness		ISO 2039/2	ScaleR	120 / -

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	175
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	65
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	200

## Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013
Comparative tracking index	Solution A	IEC 60112	V	600
CTI performance level category		Sol A		PLC 0

## Burning behaviour

UL Yellow Card availability 	Click here to have access to the UL Yellow Card → <a href="#">E170540-225449</a>			
Flammability, 0.75 mm	0.75 mm	UL 94		V2
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

*Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for natural colored products.  
\*: conditioned according to ISO 1110*

## Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	230 - 250 °C
Recommended mould temperature	60 - 90 °C

*These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.*

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