

TECHNICAL DATA SHEET

TECHNYL C 216 V35 GY R7040 XB

(Previously DOMAMID 6G35 GYR7040XB)

Polyamide 6, 35% glass fiber reinforced, for injection moulding

General

Polymer type	PA6 (Polyamide 6)
Processing technology	Injection molding
Certification	RoHS

Product identification

ISO 1043 abbreviation	PA6-GF35
ISO 16396 designation	PA6,GF35,M1,S14-110

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm ³	1.41	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2
Water absorption	24 hr, 23°C	ISO 62	%	6.3
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.2 - 0.4	
Molding shrinkage, normal	ISO 294-4, 2577	%	0.7 - 0.9	
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	145

Mechanical properties

dam / cond.*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10800 / 7100
Stress at break	5 mm/min	ISO 527-1/-2	MPa	185 / 115
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 5.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9800 / 6500
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	275 / 170
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	95 / 105
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	90 / 95
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	15 / 25
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	85 / 100
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	15 / 25
Rockwell hardness		ISO 2039/2	ScaleR	122 / -

Condition	Standard	Unit	Value
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Thermal properties

Condition	Standard	Unit	Value
Melting temperature, 10°C/min	ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa ISO 75	°C	220
Temp. of deflection under load, 1.80 MPa	1.80 MPa ISO 75	°C	200
Vicat softening temperature	50°C/h - 50N ISO 306	°C	215

Electrical properties

Condition	Standard	Unit	Value
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	500
CTI performance level category	Sol A		PLC 1

Burning behaviour

Condition	Standard	Unit	Value
Flammability, 0.75 mm	0.75 mm UL 94		HB
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	240 - 270 °C
Recommended mould temperature	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.