

TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 216L1 V30 BK
(Previously ECONAMID PLUS 6G30UV1 BK)

Polyamide 6, 30% glass fiber reinforced, UV-stabilized, for injection moulding, black

General

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

Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30(R>50),M1L1,S14-090

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm ³	1.36
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	135

Mechanical properties

				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9100 / 5700
Stress at break	5 mm/min	ISO 527-1/-2	MPa	155 / 95
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7800 / 4600
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	210 / 130
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	50 / 65
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	8.5 / 16
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	45 / 60
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	8 / 15
Rockwell hardness		ISO 2039/2	ScaleR	122 / -

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Thermal properties				
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

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

Burning behaviour

Flammability, 0.75 mm	0.75 mm	UL 94		HB
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	600
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 black 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 - 100 °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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