

TECHNICAL DATA SHEET

**TECHNYL 4EARTH C2E 216 V30 BK**  
(Previously ECONAMID PLUS 6G30 BK)

Polyamide 6, 30% glass fiber reinforced, 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),M1,S14-090

	Condition	Standard	Unit	Value
<b>Physical properties</b>				
Density		ISO 1183	g/cm <sup>3</sup>	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 <sup>3</sup> /g	135

**Mechanical properties**

				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9000 / 5700
Stress at break	5 mm/min	ISO 527-1/-2	MPa	140 / 95
Strain at break	5 mm/min	ISO 527-1/-2	%	2.5 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7500 / 4400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	200 / 120
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	40 / 55
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	6 / 10
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	35 / 50
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	5.5 / 10
Rockwell hardness		ISO 2039/2	ScaleR	122 / -

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	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	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
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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