

TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 218 V30 BK  
(Previously ECONAMID PLUS 6G30H2 BK)

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

General

Feature	Heat-aging stabilized		
Polymer type	PA6 (Polyamide 6)		
Processing technology	Injection molding		
Certification	RoHS	EC 1907/2006 (REACH)	
Colors available	Black		
Forms	Pellets		

Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30(R>50),M1H,S14-100

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.37
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.2 - 2.4
Water absorption	24 hr, 23°C	ISO 62	%	1.4 - 1.5
Water absorption, saturation			%	6.2
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3 - 0.5
Molding shrinkage, normal		ISO 294-4, 2577	%	0.8 - 1
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	135

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	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9900 / 5200
Stress at break	5 mm/min	ISO 527-1/-2	MPa	145 / 85
Strain at break	5 mm/min	ISO 527-1/-2	%	2.5 / 5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8000 / 4600
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	220 / 140
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	60 / 70
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	50 / 50
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	8 / 18
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	6 / 6
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	55 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	11 / 18
Izod notched impact strength, -30°C	-30°C	ISO 180/1A	kJ/m²	6 / 6

**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	210
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	214

**Electrical properties**

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

**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	250 - 290 °C
Recommended mould temperature	80 - 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.

## Processing conditions

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