

TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 219 BK
(Previously ECONAMID PLUS 6H1 BK)

Polyamide 6, 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
ISO 16396 designation	PA6,(R>50),M1H,S14-030

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.14
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.9 - 1.1
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1.1

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	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3200 / 1000
Stress at break		ISO 527-1/-2	MPa	70 / 45
Strain at break	5 mm/min	ISO 527-1/-2	%	5 / > 100
Yield stress	50 mm/min	ISO 527-1/-2	MPa	75 / 40
Yield strain		ISO 527-1/-2	%	3.5 / 20
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2800 / 900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	110 / 40
Charpy impact strength, +23°C	+23°C	ISO 179/1eU		NB / NB
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	NB / 35
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	4 / 20
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	NB / 18
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	5.5 / -
Rockwell hardness		ISO 2039/2	ScaleR	120 / -

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	170
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	75
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	205

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+016
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

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Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	230 - 260 °C
Recommended mould temperature	40 - 80 °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. Thess TECHNYL grades are not recommended for injection moulding hot runner systems with a diameter below 1mm.

Disclaimer

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