

TECHNICAL DATA SHEET

**TECHNYL 4EARTH C2E 219 MX20 V10 BK H**  
(Previously ECONAMID FL 6GM3010H1 212 BK)

Polyamide 6, 30% glass fiber and mineral filler, heat-aging stabilized, for injection moulding, black

**General**

Feature	Heat-aging stabilized	Recycled
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-(GF10+MD20)
ISO 16396 designation	PA6,(GF+MD)30(R100),M1H,S14-080

Condition	Standard	Unit	Value
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**Physical properties**

Condition	Standard	Unit	Value
Density	ISO 1183	g/cm <sup>3</sup>	1.37
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.3 - 0.5
Molding shrinkage, normal	ISO 294-4, 2577	%	0.7 - 0.9
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	8000 / 3800
Stress at break		ISO 527-1/-2	MPa	95 / 50
Strain at break		ISO 527-1/-2	%	2.5 / 10
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7000 / 3700
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	145 / 90
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	35 / 50
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	30 / 30
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	5 / 7
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	3 / 3
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	30 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	5 / -

**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	210
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	180
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	200

**Electrical properties**

Volume resistivity		IEC 62631-3-1	ohm.m	1E+016
Surface resistivity		IEC 62631-3-1	ohm	1E+014

**Burning behaviour**

Flammability		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).  
\*: 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	80 - 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. These TECHNYL grades are not recommended for injection moulding hot runner systems with a diameter below 1mm.*

### Disclaimer

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