

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

Physical properties

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

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	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
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/m²	35 / 50
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	30 / 30
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	5 / 7
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	3 / 3
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	30 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	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. Thess TECHNYL grades are not recommended for injection moulding hot runner systems with a diameter below 1mm.

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