

TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 219 MX20 V10 BK H
ECONAMID FL 6GM3010H1 212 BK


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

General

Polymer type	PA6	
Certifications	RoHS	EC 1907/2006 (REACH)
Feature	heat-aging stabilized recycled	organic heat stabilized
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

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

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	135.0

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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/m ²	35 / 50
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	30 / 30
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	5 / 7
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	3 / 3
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	30 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	5 / -

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
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

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability		UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Condition	Standard	Unit	Value
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Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E16
Surface resistivity		IEC 62631-3-1	ohm	1.0E14

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

Injection notes

The material is supplied in airtight bags, ready for use.,In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C.,Recommended time 2-4h.

Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered.,The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.