

TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 216 V30 BK H
ECONAMID FL 6G30 BK


Recycled polyamide 6, 30% glass fiber reinforced, for injection moulding, black

General

Certifications	RoHS
Polymer type	PA6
Feature	recycled not heat stabilized
Processing technology	injection moulding

Product identification

ISO 1043 abbreviation	PA6(REC)-GF30
ISO 16396 designation	PA6,GF30(R100),M,S14-090

Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.36
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			%	6.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.2 - 0.4
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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Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9000 / 5700
Stress at break	5 mm/min	ISO 527-1/-2	MPa	140 / 90
Strain at break	5 mm/min	ISO 527-1/-2	%	2.5 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7500 / 4400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	200 / 120
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	40 / 55
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	6 / 10
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	35 / 50
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	5.5 / 10
Rockwell hardness		ISO 2039/2	ScaleR	122 / -

*: **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	215
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	200
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	210

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 0.75 mm	0.75 mm	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	90 - 100 °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 unfilled polyamides, Domo recommends the use of high alloy steel with a low chromium content. For example: X38CrMoV5-1 (EN Norm) - 1.2367 / 1.2343 (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.