

TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 216 V15 BK
ECONAMID PLUS 6G15 BK


Recycled polyamide 6, 15% glass fiber reinforced, for injection moulding, black

General

Polymer type	PA6
Certifications	RoHS EC 1907/2006 (REACH)
Feature	recycled
Applications	consumer applications
Colors available	black
Forms	pellets
Processing technology	injection moulding

Product identification

ISO 1043 abbreviation	PA6(REC)-GF15
ISO 16396 designation	PA6,GF15(R>50),M,S14-050

Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.22
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.4 - 2.8
Water absorption	24 hr, 23°C	ISO 62	%	1.5 - 1.6
Water absorption, saturation			%	8.0
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3 - 0.5
Molding shrinkage, normal		ISO 294-4, 2577	%	0.7 - 0.9

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Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	5000 / 2400
Stress at break	5 mm/min	ISO 527-1/-2	MPa	115 / 55
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 20
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	4700 / 2300
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	175 / 80
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	30 / 90
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	4 / 12
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	20 / 60
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	4.5 / 13.5
Rockwell hardness		ISO 2039/2	ScaleR	120 / -

*: **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	205
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	190
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

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Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E13

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	240 - 260 °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.