

TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 238 V15 BK
(Previously ECONAMID PLUS 6G15I1H2 BK)

Polyamide 6, 15% glass fiber reinforced, heat-aging stabilized, for injection molding, black

General

Feature	Heat-aging stabilized Recycled	Impact modified
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications	
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6-GF15
ISO 16396 designation	PA6,GF15(R>50),M1H,S14-060

Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
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			%	7
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3 - 0.5
Molding shrinkage, normal		ISO 294-4, 2577	%	0.6 - 0.8

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	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	5600 / 3000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	90 / 50
Strain at break	5 mm/min	ISO 527-1/-2	%	3.5 / 11
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	4500 / 2400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	160 / 80
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	45 / 80
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	35 / 35
Charpy impact strength		ISO 179/1eU	kJ/m ²	35 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	5 / 11
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	3 / 4
Charpy notched impact strength		ISO 179/1eA	kJ/m ²	3 / -

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	190

Electrical properties

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

Burning behaviour

Flammability, 0.75 mm	0.75 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

*: 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	90 - 100 °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.

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