

TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 236 BK
(Previously ECONAMID PLUS 612 BK)

Polyamide 6, impact modified, for injection moulding, black

General

Feature	Impact modified	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-I
ISO 16396 designation	PA6-I,(R>50),M1,S14-020

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm ³	1.08
Humidity absorption	T=23°C, 50% RH	ISO 62	%	3.1 - 3.2
Water absorption	24 hr, 23°C	ISO 62	%	1.8 - 1.9
Water absorption, saturation			%	8.8
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.4 - 1.6
Molding shrinkage, normal		ISO 294-4, 2577	%	1.1 - 1.4
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	2400 / 750
Stress at break		ISO 527-1/-2	MPa	50 / 50
Strain at break	50 mm/min	ISO 527-1/-2	%	11 / 200
Yield stress	50 mm/min	ISO 527-1/-2	MPa	60 / -
Yield strain		ISO 527-1/-2	%	3.8 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	85 / 30
Charpy impact strength, +23°C	+23°C	ISO 179/1eU		NB / NB
Charpy impact strength, -30°C	-30°C	ISO 179/1eU		NB / NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	13 / 65
Izod impact strength, +23°C	+23°C	ISO 180/1U		NB / NB
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	15 / -
Rockwell hardness		ISO 2039/2	ScaleR	105 / -

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	145
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	50
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	175

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013

Burning behaviour

Flammability, 0.75 mm	0.75 mm	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), valid for black products.
: 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 - 260 °C
Recommended mould temperature	60 - 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. These TECHNYL grades are not recommended for injection moulding hot runner systems with a diameter below 1mm.

Processing conditions

Disclaimer

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