

TECHNICAL DATA SHEET

**TECHNYL 4EARTH A2E 32G1M BK**  
(Previously ECONAMID FR 66I1GTI85A)

Polyamide 66, impact modified, heat-aging stabilized, for injection moulding, black

**General**

Feature	Heat-aging stabilized	Impact modified
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	

**Product identification**

ISO 1043 abbreviation	PA66-I FR(72)
ISO 16396 designation	PA66-I,FR(72)(R100),M1H,S14-030

Condition	Standard	Unit	Value
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**Physical properties**

Condition	Standard	Unit	Value
Density	ISO 1183	g/cm <sup>3</sup>	1.26
Molding shrinkage, parallel	ISO 294-4, 2577	%	1 - 1.2
Molding shrinkage, normal	ISO 294-4, 2577	%	1.1 - 1.3

**Mechanical properties**

dam / cond.\*

Condition	Standard	Unit	Value	
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	2900 / -
Strain at break	50 mm/min	ISO 527-1/-2	%	25 / -
Yield stress	50 mm/min	ISO 527-1/-2	MPa	60 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2500 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	80 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	NB / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	7 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	NB / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	6.5 / -

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	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	262
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	195
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	75
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	210

**Electrical properties**

Volume resistivity		IEC 62631-3-1	ohm.m	1E+016
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Comparative tracking index	Solution A	IEC 60112	V	350
CTI performance level category		Sol A		PLC 2

**Burning behaviour**

Flammability, 0.75 mm	0.75 mm	UL 94		V2
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	960
Glow-wire ignition temperature, GWIT	1-3 mm	IEC 60695-2-13	°C	875
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	270 - 290 °C
Recommended mould temperature	70 - 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.*