

TECHNICAL DATA SHEET

TECHNYL 4EARTH C9E 218 C50 NC H
(Previously ECONAMID AIR 6RC50H2 NC99)

Polyamide 6, 50% carbon fiber reinforced, heat-aging stabilized, for injection moulding, natural color

General

Feature	Heat-aging stabilized
Polymer type	PA6 (Polyamide 6)
Processing technology	Injection molding
Certification	RoHS

Product identification

ISO 1043 abbreviation	PA6-CF50
ISO 16396 designation	PA6,CF50(R100),M1H,S14-250

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.34
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.15 - 0.35
Molding shrinkage, normal		ISO 294-4, 2577	%	0.35 - 0.65

Mechanical properties

				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	32000 / -
Stress at break	5 mm/min	ISO 527-1/-2	MPa	225 / -
Strain at break	5 mm/min	ISO 527-1/-2	%	2 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	27500 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	40 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	9 / -

Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	215

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1
Surface resistivity		IEC 62631-3-1	ohm	10

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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).
*: 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 - 280 °C
Recommended mould temperature	80 - 110 °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.

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