TECHNYL® 4EARTH®
Sustainable polyamide

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL 4EARTH C9E 218 C50 NC H

ECONAMID AIR 6RC50H2 NC99

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

General

Certifications	RoHS
Polymer type	PA6
Feature	heat-aging stabilized
Processing technology	injection moulding

Product identification

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

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.34
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.15 - 0.35
Molding shrinkage, normal		ISO 294-4, 2577	%	0.35 - 0.65

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	Condition	Standard	Unit	Value
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/m²	40 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	9 / -

: 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, 1.80 MPa	1.80 MPa	ISO 75	°C	215

	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

	Condition	Standard	Unit	Value
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1.0
Surface resistivity		IEC 62631-3-1	ohm	10.0

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

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 unfilled polyamides, Domo recommends the use of high alloy steel with a low chromium content. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (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.