

TECHNICAL DATA SHEET

**TECHNYL 4EARTH C9E 218 C30 NC H**  
**ECONAMID AIR 6RC30H2 NC99**



Recycled polyamide 6, 30% carbon fiber reinforced, heat-aging stabilized, for injection moulding, natural color

**General**

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

**Product identification**

ISO 1043 abbreviation	PA6(REC)-CF30
ISO 16396 designation	PA6,CF30(R100),MH,S14-220

Condition	Standard	Unit	Value
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**Physical properties**

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.27
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.2 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	0.55 - 0.85

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	22500 / 11000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	195 / 120
Strain at break	5 mm/min	ISO 527-1/-2	%	2.5 / 4
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	18000 / 10500
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	45 / 60
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	9 / 13

\*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	205

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
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
<b>Electrical properties</b>				
Volume resistivity		IEC 62631-3-1	ohm.m	10.0
Surface resistivity		IEC 62631-3-1	ohm	100.0

<b>Processing conditions</b>	
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 reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 / 1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 / 1.2379 (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.