

TECHNICAL DATA SHEET

TECHNYL 4EARTH C1E 216 V40 NC
ECONAMID ORO 6G40 124



Recycled polyamide 6, 40% glass fiber reinforced, for injection moulding, natural color

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	good stiffness not heat stabilized	recycled
Colors available	natural	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6(REC)-GF40
ISO 16396 designation	PA6,GF40(R30),M,S14-120

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm ³	1.45	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.9 - 2.3
Water absorption	24 hr, 23°C	ISO 62	%	1.3 - 1.4
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.2 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	0.7 - 0.9
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	155.0

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	12300 / 7200
Stress at break	5 mm/min	ISO 527-1/-2	MPa	190 / 120
Strain at break	5 mm/min	ISO 527-1/-2	%	3.1 / 5.7
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9550 / 7150
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	315 / 190
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	90 / 100
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	17 / 29
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	90 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	16 / -

*: **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, 0.45 MPa	0.45 MPa	ISO 75	°C	220
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	200
Vicat softening temperature	50°C/h - 50N	ISO 306	°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
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Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E13

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	250 - 280 °C
Recommended mould temperature	90 - 100 °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.

processing conditions

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.

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.