

TECHNICAL DATA SHEET

TECHNYL 4EARTH C1E 216L2 V30 BK H
ECONAMID ORO 6G30UV3 114 BK



Recycled polyamide 6, 30% glass fiber reinforced, UV-stabilized, for injection moulding

General

Polymer type	PA6
Certifications	RoHS
Feature	UV stabilized not heat stabilized recycled
Processing technology	injection moulding

Product identification

ISO 1043 abbreviation	PA6(REC)-GF30
ISO 16396 designation	PA6,GF30(R100),ML,S14-090

Condition	Standard	Unit	Value
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Physical properties

Property	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.36
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.2 - 2.4
Water absorption	24 hr, 23°C	ISO 62	%	1.4 - 1.5
Water absorption, saturation			%	6.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.05 - 0.1
Molding shrinkage, normal		ISO 294-4, 2577	%	0.8 - 0.9
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm ³ /10 min	35.0 - 40.0

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 5500
Stress at break	5 mm/min	ISO 527-1/-2	MPa	160 / 85
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 6.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8500 / 4700
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	265 / 140
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	60 / 75
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	8 / 15
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	45 / 60
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	8.5 / 14

*: **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.

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.