

TECHNICAL DATA SHEET

TECHNYL 4EARTH C1E 316 V30 BK H
(Previously ECONAMID ORO 6G30 BK)

Polyamide 6, 30% glass fiber reinforced, for injection moulding

General

Feature	Recycled	
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Colors available	Black	Natural
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30(R100),M1,S14-090

Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.36
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.2 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	0.7 - 0.9
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm ³ /10 min	35
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	180

Mechanical properties

dam / cond.*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9700 / -
Stress at break	5 mm/min	ISO 527-1/-2	MPa	150 / -
Strain at break	5 mm/min	ISO 527-1/-2	%	4 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	6000 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	210 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	70 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	11 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	60 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	11 / -

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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

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013

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), valid for black products.
*: 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	250 - 280 °C
Recommended mould temperature	90 - 100 °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.

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