

TECHNICAL DATA SHEET

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

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

General

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

Product identification

ISO 1043 abbreviation	PA6-GF40
ISO 16396 designation	PA6,GF40(R30),M1,S14-120

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.45
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.9
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	cm³/g	155

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/m²	90 / 100
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	17 / 29
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	90 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	16 / -

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	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

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 natural colored 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. These TECHNYL grades are not recommended for injection moulding hot runner systems with a diameter below 1mm.

Disclaimer

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