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TECHNYL® 4EARTH®
Sustainable polyamide

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TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 216 V35 BK

(Previously ECONAMID PLUS 6G35 BK)

Polyamide 6, 35% glass fiber reinforced, for injection moulding, black

General

Polymer type	PA6 (Polyamide 6)
Processing technology	Injection molding
Certification	RoHS

Product identification

ISO 1043 abbreviation	PA6-GF35
ISO 16396 designation	PA6,GF35(R>50),M1,S14-100

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.43
Water absorption	24 hr, 23°C	ISO 62	%	2
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.25 - 0.45
Molding shrinkage, normal		ISO 294-4, 2577	%	0.75 - 0.95
Viscosity number	96% H2SO4	ISO 307	cm³/g	135
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10500 / 5500
Stress at break	5 mm/min	ISO 527-1/-2	MPa	150 / 90
Strain at break	5 mm/min	ISO 527-1/-2	%	2.5 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9000 / 5000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	230 / 140
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	62 / 75
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	55 / 60
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	9 / 19
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	6 / 7

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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	210
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+015
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Burning behaviour				
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	650
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).
**: 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 - 290 °C
Recommended mould temperature	80 - 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.

Disclaimer