

TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 218 V35 BK
(Previously ECONAMID PLUS 6G35H2 BK)

Polyamide 6, 35% glass fiber reinforced, heat-aging stabilized, for injection moulding, black

General

Feature	Heat-aging stabilized
Polymer type	PA6 (Polyamide 6)
Processing technology	Injection molding
Certification	RoHS

Product identification

ISO 16396 designation	PA6,GF35(R>50),M1H,S14-100
-----------------------	----------------------------

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.42
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.8 - 2.2
Water absorption	24 hr, 23°C	ISO 62	%	1.4 - 1.5
Water absorption, saturation			%	5.9
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

TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 218 V35 BK

Thermal properties

	Condition	Standard	Unit	Value
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
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	210

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+016
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Comparative tracking index	Solution A	IEC 60112	V	450
CTI performance level category		Sol A		PLC 1

Burning behaviour

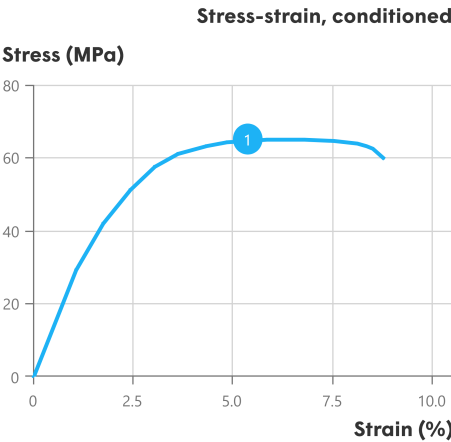
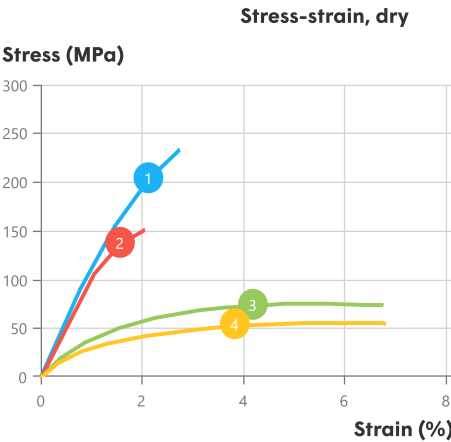
Flammability		UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Test run at 23°C if not differently specified, DAM state (dry as moulded).
*: 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

The information provided in this documentation corresponds to our technical knowledge at the date of its publication and do not constitute a specification. This information may be subject to revision at our discretion. Domo cannot anticipate all conditions under which this information and our products of other manufactures in combination with our products may be used. Domo accepts no responsibility for results obtained by the application of this information or for the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes. Unless otherwise agreed in writing, Domo sells the product without warranties. Buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products. Unless specifically indicated, the grades mentioned are not suitable for applications in the pharmaceutical/medical sector.