TECHNYL® 4EARTH®
Sustainable polyamide

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL 4EARTH C5E 216M GY R7035

ECONAMID PLUS 6 500 GYR7035

Polyamide 6, improved impact resistance, for injection moulding

General

Polymer type	PA6
Certifications	RoHS
Feature	improved impact resistance(obs)
Processing technology	injection moulding

Product identification

ISO 1043 abbreviation	PA6-I(REC)
ISO 16396 designation	PA6,(R>50),MP,S14-030

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.12
Viscosity number	96% H2SO4	ISO 307	cm³/g	135.0

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	2900 / -
Strain at break	50 mm/min	ISO 527-1/-2	%	47 / -
Yield stress	50 mm/min	ISO 527-1/-2	MPa	70 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2200 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	85 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	NB
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	11 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	NB
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	10 / -
Rockwell hardness		ISO 2039/2	ScaleR	115 / -

: 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	160
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	55
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	190

	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

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Electrical properties

	Condition	Standard	Unit	Value
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	240 - 260 °C
Recommended mould temperature	60 - 90 °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.