TECHNYL® 4EARTH®
Sustainable polyamide

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL 4EARTH C2E 216 V35 BK R9004

ECONAMID PLUS 6G35 BKR9004

Recycled polyamide 6, 35% glass fiber reinforced, for injection moulding, black

General

Polymer type	PA6
Certifications	RoHS
Feature	recycled
Processing technology	injection moulding

Product identification

ISO 1043 abbreviation	PA6(REC)-GF35
ISO 16396 designation	PA6,GF35(R>50),M,S14-110

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.41
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			%	6.1
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm³/10 min	35.0
Viscosity number	96% H2SO4	ISO 307	cm³/g	145.0

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10800 / -
Stress at break	5 mm/min	ISO 527-1/-2	MPa	140 / -
Strain at break	5 mm/min	ISO 527-1/-2	%	2.3 / -
Yield stress	5 mm/min	ISO 527-1/-2	MPa	140 / -
Yield strain	5 mm/min	ISO 527-1/-2	%	2 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9100 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	64 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	8.5 / -

: conditioned according to ISO 1110

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	221

	Condition	Standard	Unit	Value
Burning behaviour				
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

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

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 reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) -

Injection advice

1.2601 /1.2379 (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.