

TECHNICAL DATA SHEET

TECHNYL 4EARTH C1E 316 V15 NC



Recycled polyamide 6, 15% glass fiber reinforced, for injection moulding

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	medium viscosity not heat stabilized	recycled
Colors available	natural	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6(REC)-GF15
ISO 16396 designation	PA6,GF15(R60),M,S14-060

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm ³	1.22	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.5 - 2.6
Water absorption	24 hr, 23°C	ISO 62	%	1.5 - 1.6
Water absorption, saturation			%	8.0

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	6000 / -
Stress at break	5 mm/min	ISO 527-1/-2	MPa	125 / -
Strain at break	5 mm/min	ISO 527-1/-2	%	4.5 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	4500 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	180 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	50 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	7 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	50 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	7 / -

*: **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				
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

	Condition	Standard	Unit	Value
Electrical properties				
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)		

Processing conditions

Recommended melt temperature	240 - 270 °C
Recommended mould temperature	90 - 120 °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) - 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. 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.