

TECHNICAL DATA SHEET

TECHNYL 4EARTH C5E 216 V15 BK 9177

DOMAMID R 6G15 500

Polyamide 6, 15% glass fiber reinforced, improved impact resistance, for injection moulding

General

Polymer type	PA6
Certifications	RoHS
Feature	impact modified not heat stabilized
Processing technology	injection moulding

Product identification

ISO 1043 abbreviation	PA6-I-GF15
ISO 16396 designation	PA6-I,GF15(R50),M,S14-050

Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.23
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
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.4 - 0.6
Molding shrinkage, normal		ISO 294-4, 2577	%	0.8 - 1.0
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	140.0

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	5000 / -
Stress at break	5 mm/min	ISO 527-1/-2	MPa	95 / -
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	4000 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	125 / -
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	40 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	6.5 / -

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	205

	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

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	80 - 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.