

TECHNICAL DATA SHEET

TECHNYL 4EARTH A1E 218 V30 BK H

Polyamide 66, reinforced with 30% of glass fiber, heat stabilized, for injection moulding, black

General

Feature	UL HB Recycled	Heat-aging stabilized
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS EC 1907/2006 (REACH)	UL-Yellow Card
Applications	Automotive Applications	
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66(REC)-GF30
ISO 16396 designation	PA66,GF30(R100),S14-100

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm ³	1.36	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.2 - 2.4
Water absorption	24 hr, 23°C	ISO 62	%	0.8 - 0.9
Water absorption, saturation			%	5.3
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.36
Molding shrinkage, normal		ISO 294-4, 2577	%	1.1

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	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 6850
Stress at break		ISO 527-1/-2	MPa	180 / 115
Strain at break		ISO 527-1/-2	%	2.9 / 6.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8800 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	280 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	75 / 85
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	66 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	10 / 14
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	7.6 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	60 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	9 / -

Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	262
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	260
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	248

Burning behaviour

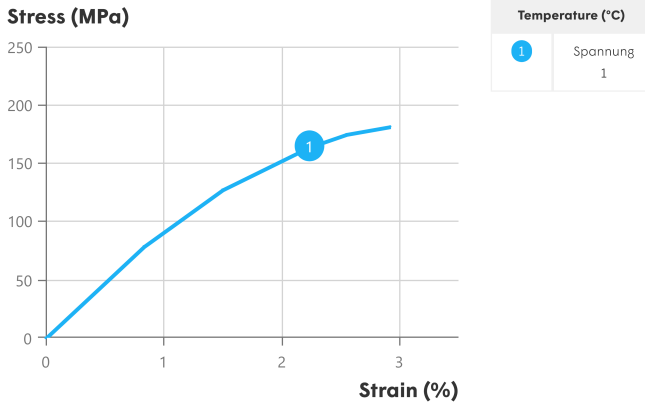
UL Yellow Card availability 	Click here to have access to the UL Yellow Card → QMFZ2.E44716			
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100

*: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	270 - 280 °C
Middle temperature	275 - 285 °C
Front temperature	280 - 290 °C
Recommended mould temperature	70 - 100 °C

Stress-strain, dry



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. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.

Disclaimer

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