

TECHNICAL DATA SHEET

TECHNYL 4EARTH A3E 216M BK



Recycled polyamide 66, impact modified, for injection molding, black

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA66	
Feature	impact modified	recycled
Applications	automotive applications	
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66-I(REC)
ISO 16396 designation	PA66,(R>50),MP,S14-030

Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.11
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.4 - 1.6
Molding shrinkage, normal		ISO 294-4, 2577	%	1.5 - 1.7
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm ³ /10 min	85.0 - 105.0
Melt flow rate, MFR		ISO 1133	g/10 min	100.0

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	2100 / 750
Stress at break		ISO 527-1/-2	MPa	50 / 30
Strain at break		ISO 527-1/-2	%	9 / 45
Yield strain		ISO 527-1/-2	%	5 / 35
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	1800 / 650
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	75 / 45
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	30 / 100
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	3 / 6

*: **conditioned according to ISO 1110**

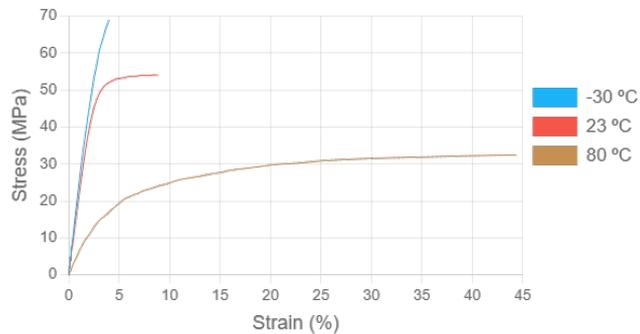
	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	261
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	189
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	70

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

Processing conditions	
Drying temperature/time	80
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

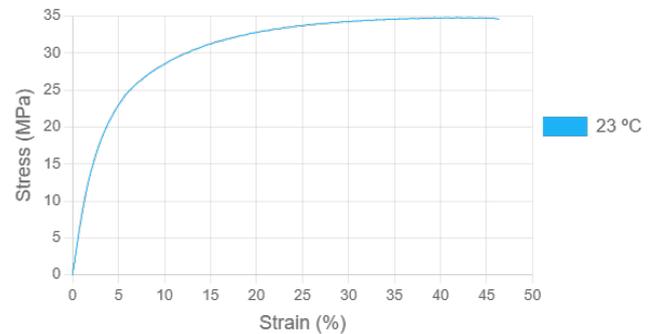
Stress-strain, dry

Temperature (°C)



Stress-strain, conditioned

Temperature (°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.