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TECHNYL® 4EARTH®
Sustainable polyamide

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL 4EARTH A1E 316 NC H

TECHNYL 4EARTH A4E 316 NATURAL

Recycled polyamide 66, medium-high viscosity, for injection moulding, naturel

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA66	
Feature	medium viscosity not heat stabilized	recycled
Applications	consumer applications	industrial applications
Colors available	natural	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66(REC)
ISO 16396 designation	PA66, (R100),M,S14-030

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.13
Humidity absorption	T=23°C, 50% RH	ISO 62	%	3.0 - 3.1
Water absorption	24 hr, 23°C	ISO 62	%	1.2 - 1.3
Water absorption, saturation			%	8.3
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.6
Molding shrinkage, normal		ISO 294-4, 2577	%	1.7

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3160 / 1270
Stress at break		ISO 527-1/-2	MPa	77 / 45
Strain at break		ISO 527-1/-2	%	30 / 150
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	150 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	4.8 / 11

: conditioned according to ISO 1110

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	265
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	215
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	70
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	245

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

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	265 - 275 °C
Middle temperature	270 - 280 °C
Front temperature	280 - 285 °C
Recommended mould temperature	60 - 80 °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

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Injection notes

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.