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TECHNYL® 4EARTH®
Sustainable polyamide

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL 4EARTH A1E 218 V30 BK

Polyamide 66, 30% glass fiber reinforced, 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(R>50),M1H,S14-100

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	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	%	0.3 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	1.05 - 1.15

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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/m²	75 / 85
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	66 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	10 / 14
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	7.6 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	60 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	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				
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 melt temperature	270 - 290 °C
Recommended mould temperature	70 - 100 °C

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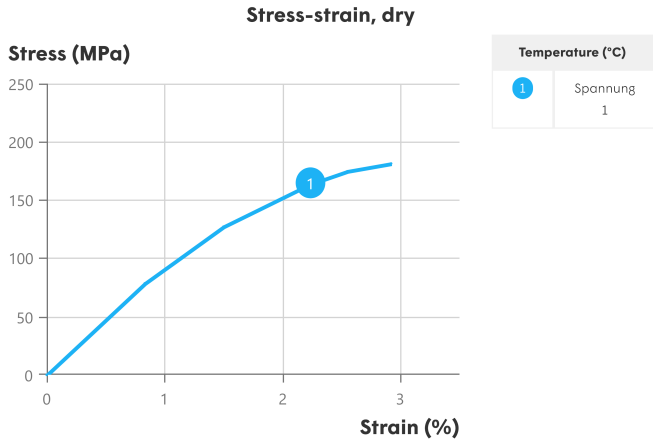

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