

Preliminary Data for 30% long glass fiber, single pellet color gray, PA66

Property

TYPICAL PROPERTIES ⁽¹⁾			
	Value	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	162	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	161	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	9110	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	234	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	8650	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	163	MPa	ISO 527
Tensile Stress, break, 5 mm/min	163	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.3	%	ISO 527
Tensile Strain, break, 5 mm/min	2.3	%	ISO 527
Tensile Modulus, 1 mm/min	8320	MPa	ISO 527
Flexural Stress, break, 2 mm/min	228	MPa	ISO 178
Flexural Modulus, 2 mm/min	7750	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	938	J/m	ASTM D 4812
Izod Impact, notched, 23°C	57	J/m	ASTM D 256
Izod Impact, notched, -40°C	52	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	7	J	ASTM D 3763
Instrumented Impact Total Energy, 23°C	12	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	158	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -40°C	52	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	13	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	14	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	260	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	256	°C	ASTM D 648
CTE, -30°C to 30°C, flow	3.37E-05	1/°C	ASTM E 831
CTE, -30°C to 30°C, xflow	6.35E-05	1/°C	ASTM E 831
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	261	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	256	°C	ISO 75/Af
PHYSICAL			
Density	1.389	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.66	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.29 - 0.49	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 - 1.2	%	ASTM D 955
Density	1.38	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.2	%	ISO 62

Parameter	Value	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15 - 0.25	%
Melt Temperature	290 - 305	°C
Front - Zone 3 Temperature	290 - 300	°C
Middle - Zone 2 Temperature	290 - 300	°C
Rear - Zone 1 Temperature	280 - 295	°C
Mold Temperature	95 - 110	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:10/30/2008

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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