

Preliminary data for 20% long fiber single pellet non-halogen FR color filled PC/ABS

Property

TYPICAL PROPERTIES ⁽¹⁾			
	Value	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	99	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	99	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	1.5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.5	%	ASTM D 638
Tensile Modulus, 50 mm/min	7640	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	139	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	139	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	8190	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	105	MPa	ISO 527
Tensile Stress, break, 5 mm/min	105	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.7	%	ISO 527
Tensile Strain, break, 5 mm/min	1.7	%	ISO 527
Tensile Modulus, 1 mm/min	7030	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	141	MPa	ISO 178
Flexural Stress, break, 2 mm/min	141	MPa	ISO 178
Flexural Strain, break, 2 mm/min	1.9	%	ISO 178
Flexural Modulus, 2 mm/min	7250	MPa	ISO 178
IMPACT			
	Value	Unit	Standard
Izod Impact, unnotched, 23°C	304	J/m	ASTM D 4812
Izod Impact, unnotched, -40°C	330	J/m	ASTM D 4812
Izod Impact, notched, 23°C	154	J/m	ASTM D 256
Izod Impact, notched, -40°C	194	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	8	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	21	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -40°C	21	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	16	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	17	kJ/m ²	ISO 180/1A
THERMAL			
	Value	Unit	Standard
HDT, 1.82 MPa, 3.2mm, unannealed	89	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.14E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.16E-05	1/°C	ASTM E 831
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	90	°C	ISO 75/Af
PHYSICAL			
	Value	Unit	Standard
Density	1.373	g/cm ³	ASTM D 792
Water Absorption, 24 hours	0.083	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.06 - 0.26	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.34 - 0.54	%	ASTM D 955
Density	1.37	g/cm ³	ISO 1183
Water Absorption, 23°C/24hrs	0.11	%	ISO 62-1

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	50 - 60	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.04	%
Melt Temperature	220 - 255	°C
Front - Zone 3 Temperature	215 - 245	°C
Middle - Zone 2 Temperature	210 - 245	°C
Rear - Zone 1 Temperature	205 - 235	°C
Mold Temperature	35 - 65	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	12 - 40	rpm

Source GMD, last updated:01/05/2009

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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