



Makroblend® UT4045 G

(PC+PBT)-GF20

Covestro Deutschland AG

- (PC PBT)-blend, 20% Glass fiber reinforced, easy release, injection molding. Makroblend UT4045G offers a high stiffness, excellent chemical resistance, good flowability and exceptional dimensional stability.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	30	cm ³ /10min	ISO 1133
Temperature	260	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	6500	MPa	ISO 527
Stress at Break	100	MPa	ISO 527
Strain at Break	3	%	ISO 527
Impact Strength (Charpy), +23°C	45	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	40	kJ/m ²	ISO 179/1eU

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	110	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	130	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	70	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	35	E-6/K	ISO 11359-1/-2

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.6	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.4	-	IEC 62631-2-1
Dissipation Factor, 100Hz	13	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	144	E-4	IEC 62631-2-1
Volume Resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface Resistivity	>1E15	Ohm	IEC 62631-3-2
Electric Strength	33	kV/mm	IEC 60243-1
Comparative tracking index	175	-	IEC 60112

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.3	%	Sim. to ISO 62
Humidity absorption	0.15	%	Sim. to ISO 62
Density	1400	kg/m ³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	70	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 105	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.01	%	-
Melt temperature	250 - 270	°C	-
Mold temperature	60 - 80	°C	-

Characteristics

Processing

Injection Molding

Additives

Release agent

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Delivery form

Pellets

Chemical Resistance

General Chemical Resistance

Injection Molding

PREPROCESSING

Max. Water content: 0.01 %

Drying temperature: 100 - 105 °C

Drying time:

Circulating air drying oven (50 % fresh air) 4-12 h

Fresh air dryer (high speed dryer) 2-4 h

Dry air dryer 2-4 h

PROCESSING

Melt temperature: 250-270 °C

Mold temperature: 60-80 °C

Use open nozzle.
