Makroblend® UT4045 G

(PC+PBT)-GF20 — Covestro Deutschland AG

Product Texts

- (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.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**30**	cm³/10min	ISO 1133
Temperature	**260**	°C	-
Load	**5**	kg	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**6500**	MPa	ISO 527
[C] Stress at break	**100**	MPa	ISO 527
[C] Strain at break	**3**	%	ISO 527
[C] Charpy impact strength, +23°C	**45**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**40**	kJ/m²	ISO 179/1eU

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Temp. of deflection under load, 1.80 MPa	**110**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**130**	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**70**	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**35**	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

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

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**0.3**	%	Sim. to ISO 62
[C] Humidity absorption	**0.15**	%	Sim. to ISO 62
[C] Density	**1400**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] 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

[C]: CAMPUS

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

Delivery form
Pellets

Additives
Release agent

Chemical Resistance
General Chemical Resistance

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

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.