



Makroblend® UT305

(PC+PET)

Covestro Deutschland AG

- (PC PET)-blend, easy release, injection molding. Makroblend UT305 offers high heat resistance, good chemical resistance and flowability. Molded parts from UT305 provide a good surface appearance and exceptional dimensional stability, even in high moisture environments.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	39	cm ³ /10min	ISO 1133
Temperature	270	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2600	MPa	ISO 527
Yield stress	69	MPa	ISO 527
Yield strain	5.4	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Impact Strength (Charpy), +23°C	no break	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	8	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	6	kJ/m ²	ISO 179/1eA
Puncture - maximum force, +23°C	4600	N	ISO 6603-2
Puncture - maximum force, -30°C	5800	N	ISO 6603-2
Puncture energy, +23°C	54	J	ISO 6603-2
Puncture energy, -30°C	62	J	ISO 6603-2

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	109	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	128	°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	70	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thicken.	HB	class	UL 94
Thickness tested	1.5	mm	-

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.55	%	Sim. to ISO 62
Humidity absorption	0.25	%	Sim. to ISO 62
Density	1240	kg/m ³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	270	°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	110	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.01	%	-
Melt temperature	260 - 280	°C	-
Mold temperature	60 - 80	°C	-

Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets

Chemical Resistance

General Chemical Resistance

Makroblend® UT305
(PC+PET)

Covestro Deutschland AG

Injection Molding

PREPROCESSING

Max. Water content: 0.01 %

Drying temperature: 110 °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: 260-280 °C

Mold temperature: 60-80 °C

Use open nozzle.
