Makroblend® UT250 HR

(PC+PET)-I — Covestro Deutschland AG

Product Texts

- (PC PET)-blend, impact modified, improved hydrolysis resistance compared to standard Makroblend UT grades, injection molding grade. Good low-temperature impact strength, flowability, and chemical resistance. Applications include lead-acid battery housings.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**22**	cm³/10min	ISO 1133
Temperature	**270**	°C	-
Molding shrinkage, parallel	**0.7**	%	ISO 294-4, 2577
Molding shrinkage, normal	**0.7**	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**2200**	MPa	ISO 527
[C] Yield stress	**55**	MPa	ISO 527
[C] Yield strain	**4.9**	%	ISO 527
[C] Nominal strain at break	**>50**	%	ISO 527
Flexural modulus, 23°C	**2200**	MPa	ISO 178
Flexural strength	**82**	MPa	ISO 178
[C] Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**N**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**65**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**35**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**N**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**60**	kJ/m²	ISO 180/1A
Izod notched impact strength	**40**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
[C] Puncture - maximum force, +23°C	**4300**	N	ISO 6603-2
[C] Puncture - maximum force, -30°C	**5300**	N	ISO 6603-2
[C] Puncture energy, +23°C	**45**	J	ISO 6603-2
[C] Puncture energy, -30°C	**47**	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Temp. of deflection under load, 1.80 MPa	**102**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**123**	°C	ISO 75-1/-2
Vicat softening temperature, B	**137**	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**75**	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**75**	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-
[C] Burning Behav. at thickness h	**HB**	class	IEC 60695-11-10
Thickness tested	**0.8**	mm	-

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**0.5**	%	Sim. to ISO 62
[C] Humidity absorption	**0.16**	%	Sim. to ISO 62
[C] Density	**1220**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**270**	°C	ISO 294
Injection Molding, mold temperature	**70**	°C	ISO 294

[C]: CAMPUS

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	**50 - 100**	°C	-
Zone 1	**245 - 255**	°C	-
Zone 2	**250 - 260**	°C	-
Zone 3	**255 - 265**	°C	-
Nozzle temperature	**255 - 270**	°C	-
Back pressure	**5 - 15**	MPa	-

Characteristics

Processing
Injection Molding

Special Characteristics
High impact or impact modified

Chemical Resistance
General Chemical Resistance, Hydrolytically Stable

Applications
Electrical and Electronical, Encapsulation

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