Makrolon® LED2245 RE

PC — Covestro Deutschland AG

Product Texts

- MVR (300 °C/1.2 kg) 34 cm³/10 min
- light guides
- optics and lenses
- PC with highest transmission
- low viscosity
- easy release

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**34**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
[C] Molding shrinkage, parallel	**0.7**	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.7**	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**2350**	MPa	ISO 527
[C] Yield stress	**63**	MPa	ISO 527
[C] Yield strain	**6**	%	ISO 527
[C] Nominal strain at break	**>50**	%	ISO 527
[C] Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
[C] Puncture - maximum force, +23°C	**4900**	N	ISO 6603-2
[C] Puncture - maximum force, -30°C	**5900**	N	ISO 6603-2
[C] Puncture energy, +23°C	**55**	J	ISO 6603-2
[C] Puncture energy, -30°C	**60**	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Glass transition temperature, 10°C/min	**145**	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**125**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**138**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**145**	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**65**	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**65**	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at thickness h	**V-2**	class	IEC 60695-11-10
Thickness tested	**0.8**	mm	-
[C] Oxygen index	**28**	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**3.1**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**5**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**95**	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	**34**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**250**	-	IEC 60112

[C]: CAMPUS

Optical properties	Value	Unit	Test Standard
ISO Data			
[C] Luminous transmittance	**90**	%	ISO 13468-1, -2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**0.3**	%	Sim. to ISO 62
[C] Humidity absorption	**0.12**	%	Sim. to ISO 62
[C] Density	**1190**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**280**	°C	ISO 294
Injection Molding, mold temperature	**80**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294

[C]: CAMPUS

Characteristics

Features
Light Guiding

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

Certifications
Contains renewable resources, ISCC Plus