Makrolon® LED2245 HP

PC — Covestro Deutschland AG

Product Texts

- MVR (300 °C/1.2 kg) 34 cm³/10 min
- low viscosity
- easy release
- Automotive interior
- developed for coated high-gloss surfaces

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
Flexural modulus, 23°C	**2350**	MPa	ISO 178
Flexural strength	**97**	MPa	ISO 178
[C] Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	**60**	kJ/m²	ISO 179/1eA
Type of failure	**P(C)**	-	-
Charpy notched impact strength, -30°C, 3mm	**12**	kJ/m²	ISO 179/1eA
Type of failure	**C**	-	-
Izod notched impact strength, +23°C	**55**	kJ/m²	ISO 180/1A
Izod notched impact strength	**12**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
Puncture - maximum force, +23°C	**4900**	N	ISO 6603-2
Puncture - maximum force, -30°C	**5900**	N	ISO 6603-2
Puncture energy, +23°C	**55**	J	ISO 6603-2
Puncture energy, -30°C	**60**	J	ISO 6603-2
Ball indentation hardness	**115**	MPa	ISO 2039-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
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
Oxygen index	**28**	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	**3.1**	-	IEC 62631-2-1
Dissipation factor, 100Hz	**5**	E-4	IEC 62631-2-1
Volume resistivity	**1E14**	Ohm*m	IEC 62631-3-1
Surface resistivity	**1E16**	Ohm	IEC 62631-3-2
Electric strength	**34**	kV/mm	IEC 60243-1
Comparative tracking index	**250**	-	IEC 60112

Optical properties	Value	Unit	Test Standard
ISO Data			
Haze	**0.5**	-	ISO 14782
Luminous transmittance	**90**	%	ISO 13468-1, -2

Other properties	Value	Unit	Test Standard
Water absorption	**0.3**	%	Sim. to ISO 62
Humidity absorption	**0.12**	%	Sim. to ISO 62
[C] Density	**1190**	kg/m³	ISO 1183
Bulk density	**660**	kg/m³	-

[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

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**120**	°C	-
Pre-drying - Time	**2 - 3**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**280 - 320**	°C	-
Mold temperature	**80 - 120**	°C	-
Zone 1	**250 - 260**	°C	-
Zone 2	**270 - 280**	°C	-
Zone 3	**280 - 290**	°C	-
Nozzle temperature	**290 - 300**	°C	-
Back pressure	**5 - 15**	MPa	-

Characteristics

Processing
Injection Molding

Additives
Release agent

Special Characteristics
Transparent

Features
Color Stability, Light Guiding

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