Makrolon® DQ5122

PC — Covestro Deutschland AG

Product Texts

- MVR (300 °C/1.2 kg) 34 cm³/10 min
- light diffusion grade
- low diffusion
- low viscosity
- UV stabilized
- 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	**2300**	MPa	ISO 527
[C] Yield stress	**65**	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
Charpy impact strength, -30°C	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	**12**	kJ/m²	ISO 179/1eA
Type of failure	**C**	-	-
Charpy notched impact strength, -30°C, 3mm	**12**	kJ/m²	ISO 179/1eA
Type of failure	**C**	-	-
[C] Puncture - maximum force, +23°C	**4900**	N	ISO 6603-2
[C] Puncture - maximum force, -30°C	**5800**	N	ISO 6603-2
[C] Puncture energy, +23°C	**44**	J	ISO 6603-2
[C] Puncture energy, -30°C	**50**	J	ISO 6603-2
Ball indentation hardness	**120**	MPa	ISO 2039-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Temp. of deflection under load, 1.80 MPa	**120**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**135**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**140**	°C	ISO 306
[C] Burning Behav. at thickness h	**V-2**	class	IEC 60695-11-10
Thickness tested	**0.8**	mm	-
Yellow Card available	**yes**	-	-
Glow Wire Flammability Index (GWFI)	**850**	°C	IEC 60695-2-12
GWFI - thickness tested (1)	**0.75**	mm	-
Glow Wire Flammability Index (GWFI)	**850**	°C	IEC 60695-2-12
GWFI - thickness tested (2)	**1.5**	mm	-
Glow Wire Flammability Index (GWFI)	**930**	°C	IEC 60695-2-12
GWFI - thickness tested (3)	**3**	mm	-
Glow Wire Ignition Temperature (GWIT)	**850**	°C	IEC 60695-2-13
GWIT - thickness tested (1)	**0.75**	mm	-
Glow Wire Ignition Temperature (GWIT)	**850**	°C	IEC 60695-2-13
GWIT - thickness tested (2)	**1.5**	mm	-
Glow Wire Ignition Temperature (GWIT)	**850**	°C	IEC 60695-2-13
GWIT - thickness tested (3)	**3**	mm	-

[C]: CAMPUS

Optical properties	Value	Unit	Test Standard
ISO Data			
Haze	**97**	-	ISO 14782
Luminous transmittance	**85**	%	ISO 13468-1, -2

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	**1200**	kg/m³	ISO 1183

[C]: CAMPUS

Film Properties	Value	Unit	Test Standard
ISO Data			
Thickness of specimen	**1**	mm	-

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	**250 - 300**	°C	-
Mold temperature	**80 - 120**	°C	-
Zone 1	**230 - 240**	°C	-
Zone 2	**250 - 260**	°C	-
Zone 3	**260 - 270**	°C	-
Nozzle temperature	**260 - 270**	°C	-
Back pressure	**5 - 15**	MPa	-

Characteristics

Processing
Injection Molding

Additives
Release agent

Special Characteristics
U.V. stabilized or stable to weather, Transparent, Translucent

Features
Light Diffusing

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