+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

Makrolon® LED5902 FR RE

PC

Covestro Deutschland AG

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	6	cm³/10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
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			
Tensile Modulus	2300	MPa	ISO 527
Yield stress	66	MPa	ISO 527
Yield strain	6.2	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Stress at Break	60	MPa	ISO 527
Strain at Break	60	%	ISO 527
Impact Strength (Charpy), +23°C	no break	kJ/m²	ISO 179/1eU
Puncture - maximum force, +23°C	5100	N	ISO 6603-2
Puncture - maximum force, -30°C	6100	N	ISO 6603-2
Puncture energy, +23°C	50	J	ISO 6603-2
Puncture energy, -30°C	55	J	ISO 6603-2
Flexural Modulus (23°C)	2400	MPa	ISO 178
Flexural strength	99	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	50	kJ/m²	ISO 180/1A
Ball Indentation Hardness	120	MPa	ISO 2039-1

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	121	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	136	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	142	°C	ISO 306
Burning Behav. at thickness h	V-0	class	UL 94
Thickness tested	1.0	mm	-
Burning Behav. 5V at Thickness h	5VA	class	IEC 60695-11-20
Thickness tested	3.0	mm	-
Oxygen index	39	%	ISO 4589-1/-2
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.75	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	1.5	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3	mm	-
Glow Wire Ignition Temperature)	850	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.75	mm	-
Glow Wire Ignition Temperature)	850	°C	IEC 60695-2-13
GWIT - thickness tested (2)	1.5	mm	-
Glow Wire Ignition Temperature)	850	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-

Other Properties	Value	Unit	Test Standard
ISO Data			
Density	1200	kg/m³	ISO 1183

Film Properties	Value	Unit	Test Standard
ISO Data			
Haze	1	-	ISO 14782

Material Specific Properties	Value	Unit	Test Standard
ISO Data			
Luminous transmittance	89	%	ISO 13468-1, -2

+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

Makrolon® LED5902 FR RE

PC

Covestro Deutschland AG

Optical Properties	Value	Unit	Test Standard
ASTM Data			
Index of Refraction	1.58	-	ISO 489

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	4	h	-
Melt temperature	280 - 320	°C	-
Mold temperature	80	°C	-

Characteristics

Processing

Injection Molding

Special Characteristics

Flame retardant, UV stablized, Transparent

Additives

Release agent

Certifications

Contains renewable resources, ISCC Plus