



Makrolon® FR6019 CTI
PC

Covestro Deutschland AG

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	13	cm³/10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
Molding shrinkage, parallel	0.6	%	ISO 294-4, 2577
Molding shrinkage, normal	0.6	%	ISO 294-4, 2577

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2470	MPa	ISO 527
Yield stress	66	MPa	ISO 527
Yield strain	6	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Stress at Break	66	MPa	ISO 527
Strain at Break	119	%	ISO 527
Impact Strength (Charpy), +23°C	no break	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	11	kJ/m²	ISO 179/1eA
Puncture - maximum force, +23°C	5200	N	ISO 6603-2
Puncture energy, +23°C	58	J	ISO 6603-2
Flexural Modulus (23°C)	2450	MPa	ISO 178
Flexural strength	99	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	9	kJ/m²	ISO 180/1A
Ball Indentation Hardness	128	MPa	ISO 2039-1

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	112	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	125	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	130	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	70	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	71	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	V-0	class	UL 94
Thickness tested	1.5	mm	-
UL recognition	yes	-	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	1.5	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	3	mm	-
Glow Wire Ignition Temperature)	825	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1.5	mm	-
Glow Wire Ignition Temperature)	825	°C	IEC 60695-2-13
GWIT - thickness tested (2)	3	mm	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Volume Resistivity	4E17	Ohm*m	IEC 62631-3-1
Surface Resistivity	5E16	Ohm	IEC 62631-3-2
Electric Strength	31	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

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

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	4	h	-
Melt temperature	280 - 310	°C	-

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Characteristics

Processing

Injection Molding

Applications

Automotive, Electrical and Electronical, Packaging

Special Characteristics

Flame retardant