Makrolon® FR6019 CTI

PC — Covestro Deutschland AG

Processing/Physical Characteristics	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
Flexural modulus, 23°C	**2450**	MPa	ISO 178
Flexural strength	**99**	MPa	ISO 178
Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**11**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**9**	kJ/m²	ISO 180/1A
Puncture - maximum force, +23°C	**5200**	N	ISO 6603-2
Puncture energy, +23°C	**58**	J	ISO 6603-2
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, B	**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	IEC 60695-11-10
Thickness tested	**1.5**	mm	-
Yellow Card available	**yes**	-	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
GWFI - thickness tested (1)	**1.5**	mm	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
GWFI - thickness tested (2)	**3**	mm	-
Glow Wire Ignition Temperature (GWIT)	**825**	°C	IEC 60695-2-13
GWIT - thickness tested (1)	**1.5**	mm	-
Glow Wire Ignition Temperature (GWIT)	**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
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	-

Characteristics

Processing
Injection Molding

Applications
Automotive, Electrical and Electronical, Packaging

Special Characteristics
Flame retardant

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