

Ryton® BR111

PPS-(GF+MX)

Syensqo

Processing/Physical Characteristics	Value	Unit	Test Standard
Other Standards^{S1}			
Mold Shrinkage, MD	0.002	mm/mm	
Mold Shrinkage, TD	0.004	mm/mm	

S: These properties are reported by the producer according standards that are different to our defaults.

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Strength	165	MPa	ISO 527
Strain at break	1.1	%	ISO 527
Flexural modulus, 23°C	19000	MPa	ISO 178
Flexural strength	255	MPa	ISO 178
Izod impact strength, +23°C	24	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	8	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Strength	159	MPa	ASTM D 638
Elongation at Break	1.1	%	ASTM D 638
Compressive Strength	295	MPa	ASTM D 695
Flexural Modulus	19300	MPa	ASTM D 790
Flexural Strength	241	MPa	ASTM D 790
Rockwell Hardness	M 101	-	ASTM D 785
Izod Impact notched, 1/8 in	75	J/m	ASTM D 256
Izod Impact unnotched, 1/4 in	320	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Burning behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	1.6	mm	-
ASTM Data			
UL 94 Flame rating	V-0	-	UL 94
Thickness tested	1.6	mm	-
DTUL @ 264 psi	265	°C	ASTM D 648
Limiting Oxygen Index	65	%	ASTM D 2863
Other Standards^{S1}			
Coefficient of Thermal Expansion, MD	14.4	E-6/K	ASTM E 831
Coefficient of Thermal Expansion, TD	30.6	E-6/K	ASTM E 831
Thermal Conductivity, solid state	0.51	W/(m K)	

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Electrical properties	Value	Unit	Test Standard
ISO Data			
Comparative tracking index	275	-	IEC 60112
ASTM Data			
Dielectric Strength, Short Time	18	kV/mm	ASTM D 149
Dissipation Factor, 1 MHz	0.003	-	ASTM D 150
Dielectric Constant, 1 MHz	4.6	-	ASTM D 150
Surface Resistivity	1E16	Ohm	ASTM D 257
Volume Resistivity	1E15	Ohm*cm	ASTM D 257
Arc Resistance	180	s	ASTM D 495

Other properties	Value	Unit	Test Standard
Water Absorption, 24hr	0.02	%	ASTM D 570
Density	1940	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	135 - 150	°C	-
Pre-drying - Time	2 - 4	h	-

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Melt temperature	320 - 330	°C	-
Mold temperature	135 - 150	°C	-
Zone 1	295 - 315	°C	-
Zone 2	305 - 325	°C	-
Zone 3	315 - 345	°C	-
Nozzle temperature	305 - 325	°C	-

Characteristics**Processing**

Injection Molding

Delivery form

Pellets, Natural Color

Chemical Resistance

General Chemical Resistance

Certifications

RoHS compliant

Applications

Automotive

Regional Availability

North America, Europe, Asia Pacific, South and Central America