



Makroblend® S7916

(PBT+PC)-I

Covestro Deutschland AG

(PBT+PC)-blend, impact modified, Injection molding grade, excellent chemical resistance, high toughness at low temperatures, ideal for painted applications, unreinforced, applications: motorcycle body parts

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	13	cm ³ /10min	ISO 1133
Temperature	260	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	1800	MPa	ISO 527
Yield stress	40	MPa	ISO 527
Yield strain	4	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Tensile Creep Modulus, 1h	1500	MPa	ISO 899-1
Tensile Creep Modulus, 1000h	1200	MPa	ISO 899-1
Impact Strength (Charpy), +23°C	no break	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	69	kJ/m ²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	60	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	90	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	110	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	110	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB	class	UL 94
Thickness tested	1.6	mm	-
Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	0.8	mm	-
Oxygen index	20	%	ISO 4589-1/-2

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.1	-	IEC 62631-2-1
Relative permittivity, 1MHz	2.9	-	IEC 62631-2-1
Dissipation Factor, 100Hz	23	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	140	E-4	IEC 62631-2-1
Volume Resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface Resistivity	>1E15	Ohm	IEC 62631-3-2
Comparative tracking index	600	-	IEC 60112

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.5	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62
Density	1200	kg/m ³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	70	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 105	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.01	%	-
Melt temperature	250 - 270	°C	-
Mold temperature	60 - 80	°C	-

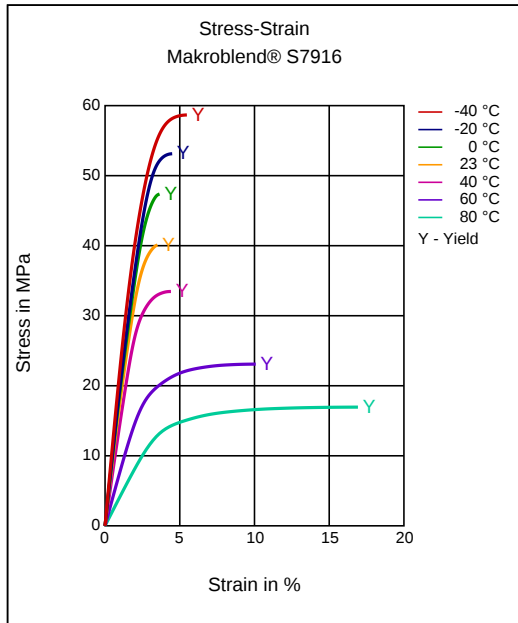
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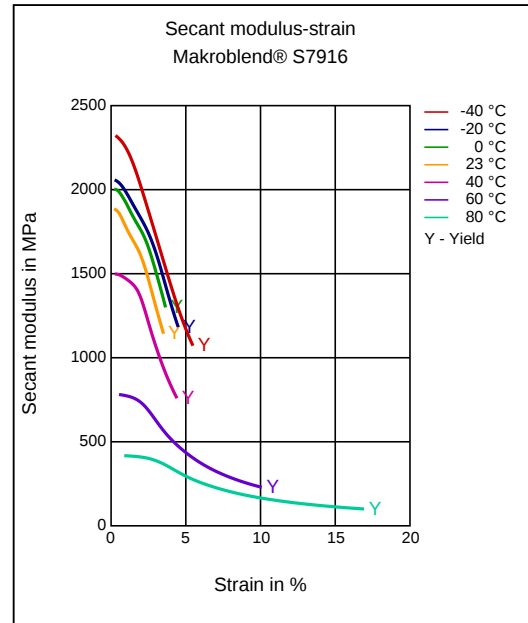
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Diagrams

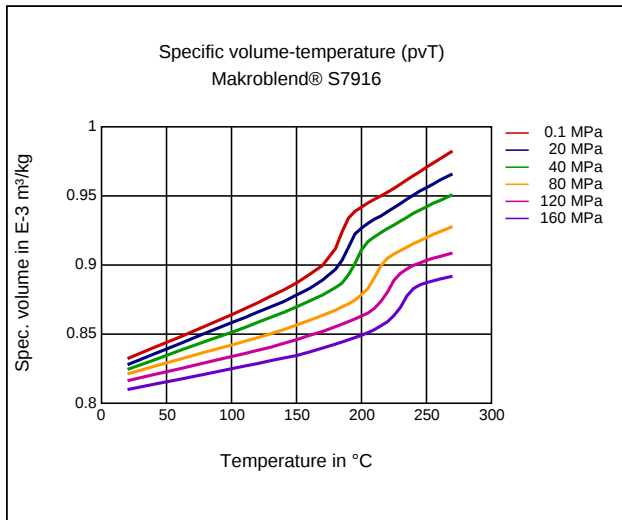
Stress-strain



Secant modulus-strain



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Additives

Release agent

Special Characteristics

Impact modified

Injection Molding

PREPROCESSING

Max. Water content: 0.01 %

Drying temperature: 100 - 105 °C

Drying time:

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Circulating air drying oven (50 % fresh air) 4-12 h

Fresh air dryer (high speed dryer) 2-4 h

Dry air dryer 2-4 h

PROCESSING

Melt temperature: 250-270 °C

Mold temperature: 60-80 °C

Use open nozzle.
