# 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 | cm³/10min | 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/m² | ISO 179/1eU |
| Impact Strength (Charpy), -30°C | no break | kJ/m² | ISO 179/1eU |
| Notched Impact Strength (Charpy), +23°C | 69 | kJ/m² | 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 |

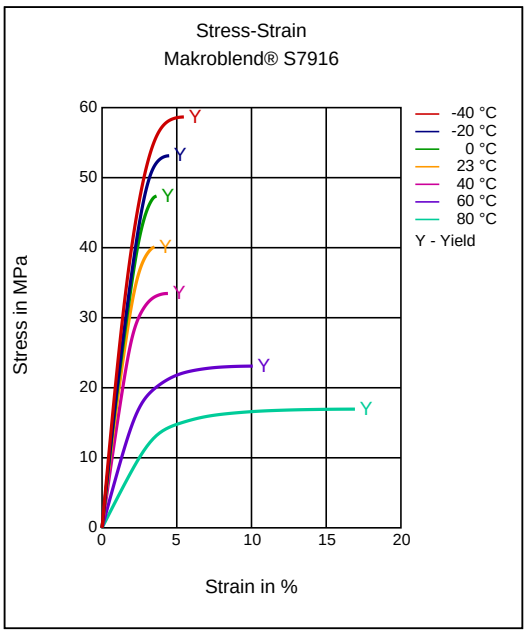
| Other Properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Water Absorption | 0.5 | % | Sim. to ISO 62 |
| Humidity absorption | 0.2 | % | Sim. to ISO 62 |
| Density | 1200 | kg/m³ | ISO 1183 |

| 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 |

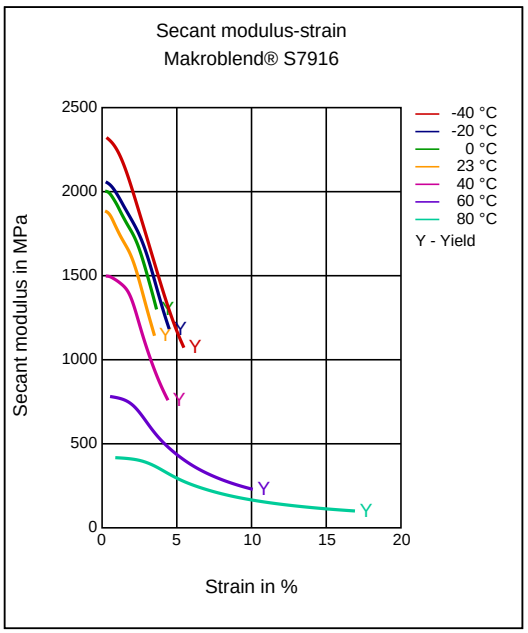
| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|---|---|---|
| Pre-drying - Temperature | 100 - 105 | °C | - |
| Pre-drying - Time | 2 - 4 | h | - |
| Processing humidity | ≤0.01 | % | - |
| Melt temperature | 250 - 270 | °C | - |
| Mold temperature | 60 - 80 | °C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

## Diagrams

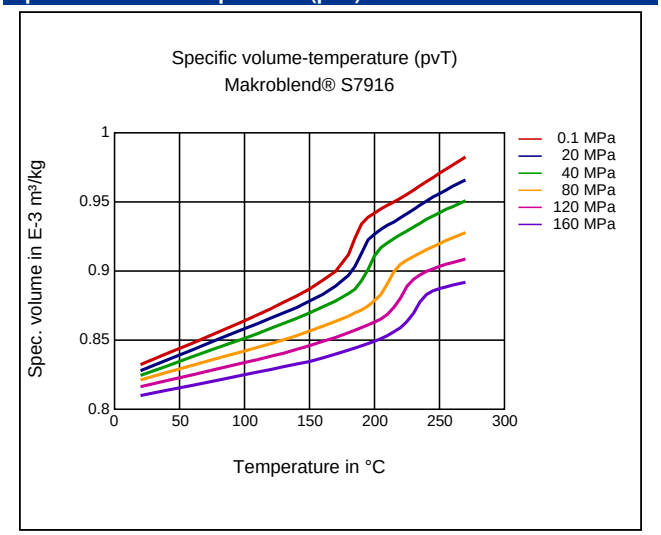
### Stress-strain




### Secant modulus-strain




### Specific volume-temperature (pvT)




## Characteristics

### Processing
Injection Molding

### Additives
Release agent

### Delivery form
Pellets

### Special Characteristics
Impact modified

### Injection Molding
PREPROCESSING
Max. Water content: 0.01 %
Drying temperature: 100 - 105 °C
Drying time:

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.

## Disclaimer

**Liability Exclusion**
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