

## Bayblend® FR3010 (PC+ABS) FR(40)

Covestro Deutschland AG

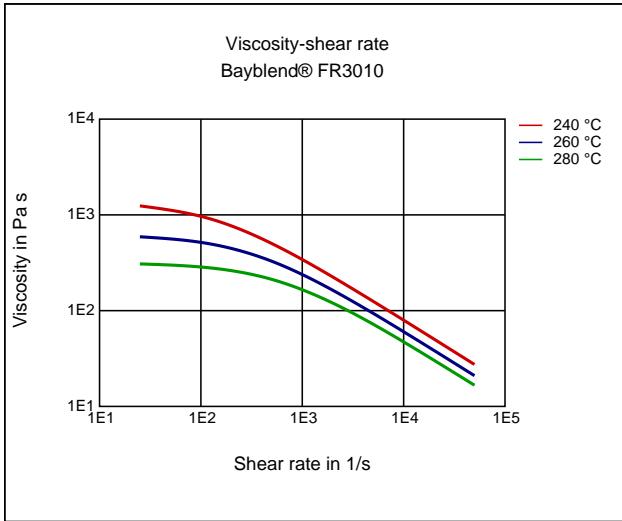
- (PC+ABS)-Blend
- flame retardant
- Vicat/B 120 temperature = 110 °C
- increased heat resistance
- UL recognition 94 V-0 at 1.5 mm
- glow wire temperature (GWFI): 960 °C at 2.0 mm
- improved chemical resistance and stress cracking behavior
- successor to FR2010

Rheological properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	15	cm <sup>3</sup> /10min	ISO 1133
Temperature	240	°C	-
Load	5	kg	-
<b>Mechanical Properties</b>			
<b>ISO Data</b>			
Tensile Modulus	2700	MPa	ISO 527
Yield stress	60	MPa	ISO 527
Yield strain	4	%	ISO 527
<b>Thermal Properties</b>			
<b>ISO Data</b>			
Temp. of deflection under load (1.80 MPa)	90	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	100	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	108	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	76	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	80	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	-
Burning Behav. 5V at Thickness h	5VB	class	IEC 60695-11-20
Thickness tested	2.0	mm	-
Oxygen index	32	%	ISO 4589-1/-2
<b>Electrical Properties</b>			
<b>ISO Data</b>			
Relative permittivity, 100Hz	3.2	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.1	-	IEC 62631-2-1
Dissipation Factor, 100Hz	50	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	70	E-4	IEC 62631-2-1
Volume Resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface Resistivity	>1E15	Ohm	IEC 62631-3-2
Electric Strength	35	kV/mm	IEC 60243-1
Comparative tracking index	350	-	IEC 60112
<b>Other Properties</b>			
<b>ISO Data</b>			
Water Absorption	0.5	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62
Density	1180	kg/m <sup>3</sup>	ISO 1183
<b>Test specimen production</b>			
<b>ISO Data</b>			
Injection Molding, melt temperature	240	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	240	mm/s	ISO 294
<b>Processing Recommendation Injection Molding</b>			
Pre-drying - Temperature	75 - 100	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.02	%	-

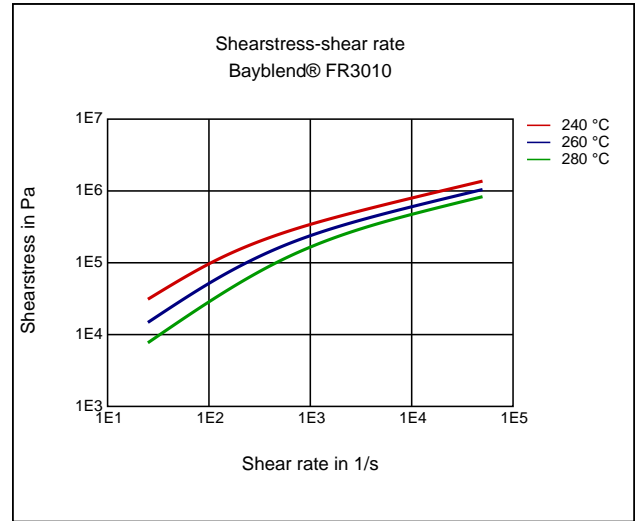
Melt temperature	240 - 280	°C	-
Mold temperature	70 - 100	°C	-

**Diagrams**

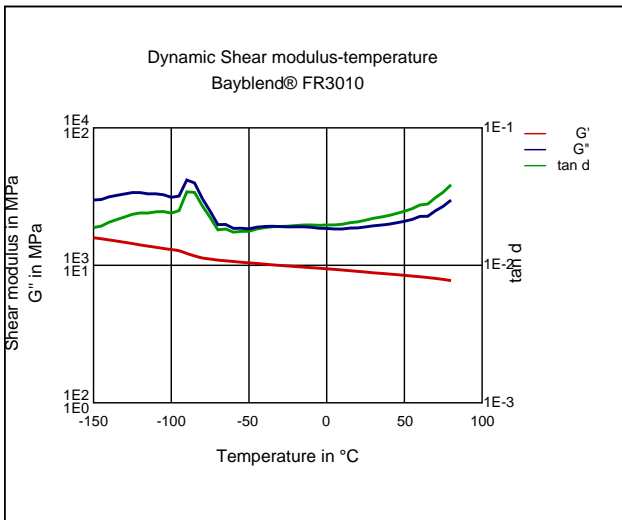
**Viscosity-shear rate**



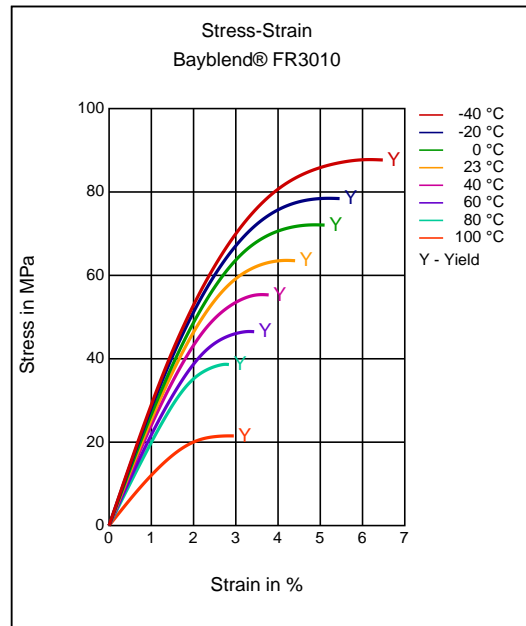
**Shearstress-shear rate**



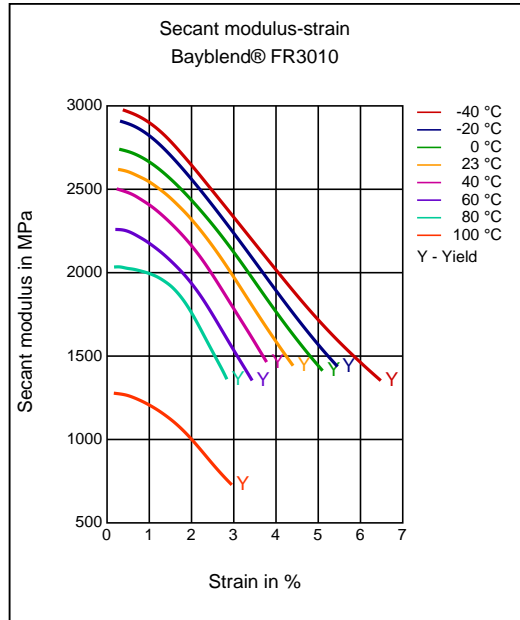
**Dynamic Shear modulus-temperature**



**Stress-strain**



**Secant modulus-strain**



**Characteristics**

**Processing**

Injection Molding

**Additives**

Release agent

**Delivery form**

Pellets

**Special Characteristics**

Flame retardant

**Injection Molding**

**PREPROCESSING**

Max. Water content: 0.02 %

Drying temperature: 75 - 100 °C

(depending on the grade 10 °C below the Vicat VST/B120 temperature, but not higher as the recommended values).

Drying time:

Circulating air drying oven (50 % fresh air) 4-8 h

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

Dry air dryer 2-4 h

**PROCESSING**

Melt temperature: 240-280 °C

Mold temperature: 70-100 °C

Use open nozzle.

**Disclaimer**

**Liability Exclusion**

These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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