



Bayblend® FR1514

(PC+ABS) FR(40)

Covestro Deutschland AG

- (PC ABS)-Blend
- flame retardant
- high heat resistance
- Vicat/B 120 temperature = 136 °C
- ball indentation temperature $\geq$ 125 °C
- UL recognition 94 V-0 at 1.5 mm
- suitable as supporting material for energized parts

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	19	cm ³ /10min	ISO 1133
Temperature	260	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2400	MPa	ISO 527
Yield stress	63	MPa	ISO 527
Yield strain	5	%	ISO 527

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	114	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	126	°C	ISO 75-1/-2
Vicat softening temperature, 50 °C/h 50N	134	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	68	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	68	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	30	%	ISO 4589-1/-2

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.2	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.1	-	IEC 62631-2-1
Dissipation Factor, 100Hz	20	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	85	E-4	IEC 62631-2-1
Volume Resistivity	$>1\text{E}13$	Ohm*m	IEC 62631-3-1
Surface Resistivity	$>1\text{E}15$	Ohm	IEC 62631-3-2
Electric Strength	35	kV/mm	IEC 60243-1
Comparative tracking index	350	-	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	1190	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	80	°C	ISO 294
Injection Molding, injection velocity	240	mm/s	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 110	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤ 0.02	%	-
Melt temperature	240 - 280	°C	-

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Mold temperature

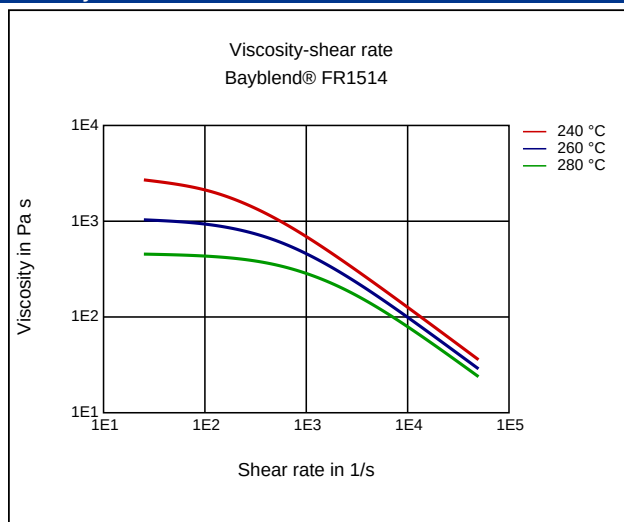
70 - 100

°C

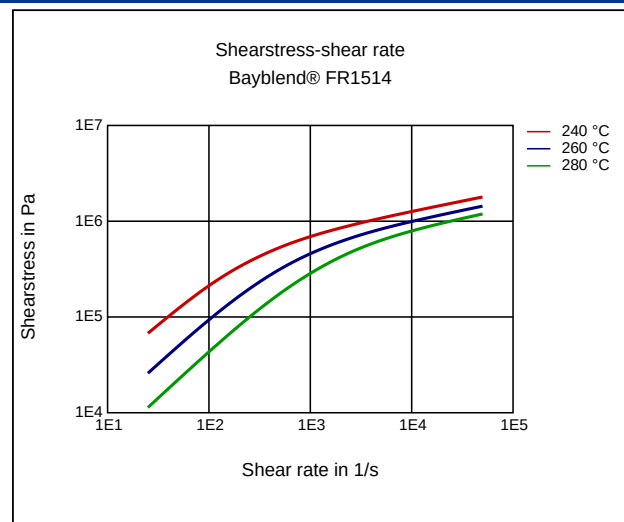
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Diagrams

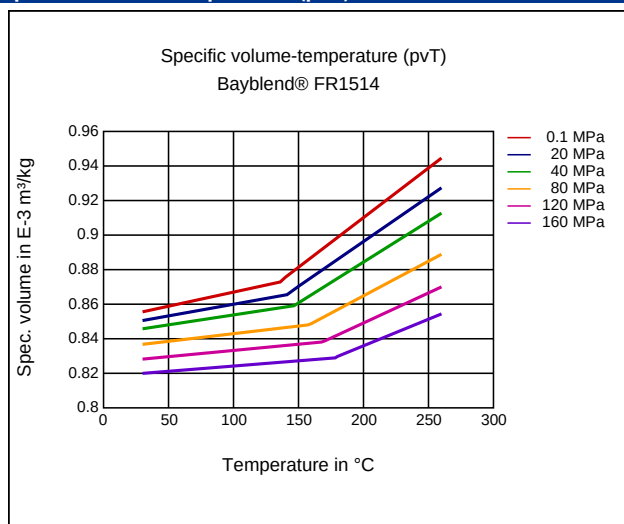
Viscosity-shear rate



Shearstress-shear rate



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets

Special Characteristics

Flame retardant, Heat aging stabilized

Injection Molding

PREPROCESSING

Max. Water content: 0.02 %

Drying temperature: 100 - 110 °C

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

Drying time:

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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.
