

Bayblend® FR3040 HR

PC-I FR(40)

Covestro Deutschland AG

- Rubber modified PC blend
- flame retardant
- Vicat/B120 temperature = 104 °C
- improved hydrolysis resistance compared to a general purpose PC+ABS-FR, e.g. Bayblend FR 3010
- UL recognition 94 V-0 (1.0 mm)
- for thin-wall applications

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	20	cm ³ /10min	ISO 1133
Temperature	240	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2650	MPa	ISO 527
Yield stress	65	MPa	ISO 527
Yield strain	4	%	ISO 527
Notched Impact Strength (Izod), 23 °C	13	kJ/m ²	ISO 180/1A
Notched Impact Strength (Izod)	7	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-
Impact Strength (Izod), 23 °C	no break	kJ/m ²	ISO 180/1U

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	89	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	99	°C	ISO 75-1/-2
Vicat softening temperature, 50 °C/h 50N	104	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	70	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	71	E-6/K	ISO 11359-1/-2
Burning Behav. at thickness h	V-0	class	UL 94
Thickness tested	1.0	mm	-
Burning Behav. 5V at Thickness h	5VB	class	IEC 60695-11-20
Thickness tested	3.0	mm	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	2.9	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.1	-	IEC 62631-2-1
Dissipation Factor, 100Hz	61	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	113	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	34	kV/mm	IEC 60243-1
Comparative tracking index	300	-	IEC 60112
Relative permittivity, 100Hz	2.9	-	IEC 60250
Relative permittivity, 1MHz	3.1	-	IEC 60250
Dissipation Factor, 100Hz	61	E-4	IEC 60250
Dissipation Factor, 1MHz	113	E-4	IEC 60250
Volume Resistivity	1E16	Ohm*m	IEC 60093
Surface Resistivity	1E16	Ohm	IEC 60093

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.4	%	Sim. to ISO 62
Humidity absorption	0.1	%	Sim. to ISO 62
Density	1240	kg/m ³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	240	°C	ISO 294

Injection Molding, mold temperature	80	°C	ISO 294
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Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	240 - 270	°C	-
Mold temperature	60 - 90	°C	-
Zone 1	220 - 230	°C	-
Zone 2	225 - 235	°C	-
Zone 3	230 - 240	°C	-
Nozzle temperature	255 - 265	°C	-
Back pressure	5 - 15	MPa	-

Characteristics

Processing

Injection Molding

Chemical Resistance

Hydrolysis

Special Characteristics

Flame retardant, Impact modified

Applications

General Purpose

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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