



IfBB

Institute for Bioplastics
and Biocomposites



Technical datasheet

IfBB Blend IS120

Product description

The IfBB Blend IS120 is a specially developed PLA modification which is particularly suitable for applications which require a high impact strength. The material can be processed via injection moulding at a mould temperature of 20 – 25 °C. Due to the optimised flowability of the IfBB Blend IS120, thin-walled components can be prepared and produced in addition to thick-walled components.

Physical properties

Mechanical properties	Value	Unit	Test method / Norm
Tensile modulus of elasticity	~ 2850	MPa	DIN EN ISO 527-2
Tensile strength	~ 49	MPa	DIN EN ISO 527-2
Charpy impact strength	~ 110 - NB	kJ/m ²	DIN EN ISO 179 / 1 e U (23°C)
Charpy notched impact strength	~ 14	kJ/m ²	DIN EN ISO 179 / 1 e A (23°C)
Thermal properties	Value	Unit	Test method / Norm
Heat deflection temperature (HDT-A)	~ 52	°C	DIN EN ISO 75-2
Heat deflection temperature (HDT-B)	~ 54	°C	DIN EN ISO 75-2
Melting point	~ 170	°C	DIN EN ISO 11357-1
Glass transition temperature	~ 57-61	°C	DIN EN ISO 11357-1
Rheological properties	Value	Unit	Test method / Norm
Melt flow rate (190°C / 2.16kg)	~ 20	g/10min	DIN EN ISO 1133
Melt volume rate (190°C / 2.16kg)	~ 19	cm ³ /10min	DIN EN ISO 1133
Other properties	Value	Unit	Test method / Norm
Density	~ 1.2	g/cm ³	DIN 1183-1, A

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Processing via injection moulding

Material conditioning	Value	Unit
Processing humidity	< 250	ppm
Drying temperature	60 - 100	°C
Drying duration	6 - 12	h
Injection moulding settings	Value	Unit
Mould temperature*	20 - 25	°C
Temperature zones		
Flange	30 / 50	°C
Zone 1	175	°C
Zone 2	185	°C
Zone 3	195	°C
Zone 4	185	°C
Zone 11	175	°C

*The thermomechanical properties are dependent on the mould temperature; the specified temperature should therefore be used. Furthermore, at this temperature, the shortest residual cooling time/cycle time is to be expected.

Contact

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