IfBB
Institute for Bioplastics and Biocomposites

HOCHSCHULE HANNOVER
UNIVERSITY OF APPLIED SCIENCES AND ARTS
Fakultät II
Maschinenbau und Bioverfahrenstechnik

Technical datasheet

IfBB Blend RP-H25

Product description

The IfBB Blend RP-H25 is a specially developed PLA modification with natural residues. Through the application of these economical, renewable raw materials, the potential of residues can be optimally exploited.

Physical properties

Mechanical properties	**Value**	**Unit**	**Test method / Norm**
Tensile modulus of elasticity	~ 4700	MPa	DIN EN ISO 527-2
Tensile strength	~ 50	MPa	DIN EN ISO 527-2
Charpy impact strength	~ 7	kJ/m²	DIN EN ISO 179 / 1 e U (23°C)
Charpy notched impact strength	-	kJ/m²	DIN EN ISO 179 / 1 e A (23°C)
Thermal properties	**Value**	**Unit**	**Test method / Norm**
Heat deflection temperature (HDT-A)	~ 54	°C	DIN EN ISO 75-2
Heat deflection temperature (HDT-B)	-	°C	DIN EN ISO 75-2
Melting point	~ 168	°C	DIN EN ISO 11357-1
Glass transition temperature	~ 56	°C	DIN EN ISO 11357-1
Rheological properties	**Value**	**Unit**	**Test method / Norm**
Melt flow rate (190°C / 5kg)	~ 37	g/10min	DIN EN ISO 1133
Melt volume rate (190°C / 5kg)	~ 31	cm³/10min	DIN EN ISO 1133
Other properties	**Value**	**Unit**	**Test method / Norm**
Density	~ 1.3	g/cm³	DIN 1183-1, A

Processing via injection moulding

Material conditioning	Value	Unit
Processing humidity	> 500	ppm
Drying temperature	60 - 100	°C
Drying duration	12 - 48	h
Injection moulding settings	**Value**	**Unit**
Mould temperature*	20 - 25	°C
Temperature zones		
Flange	50	°C
Zone 1	175	°C
Zone 2	185	°C
Zone 3	195	°C
Zone 4	200	°C
Zone 11	210	°C
Zone 13	220	°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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