

Technical Data Sheet of the Type Biofibre® Silva

Date of issue: 26/06/2018
 Revised on: -
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 Version: 1.0



Replaces Version: -

1 Mechanical properties*1

Material property	Value	Unit	Test method	Comment
E-Modulus	3200	MPa	DIN EN ISO 527-2	Tensile testing (1 mm/min)
Tensile Strength	39	MPa	DIN EN ISO 527-2	Tensile testing (10 mm/min)
Tensile Strain at Tensile Strength	1.8	%	DIN EN ISO 527-2	Tensile testing (10 mm/min)
Flexural Modulus	3200	MPa	DIN EN ISO 178	Three point flexural test
Flexural Strain at Break	1.3	%	DIN EN ISO 178	Three point flexural test
Notched Impact Strength (Charpy)	2.2	kJ/m ²	ISO 179-1/1eA	fracture
Impact Strength (Charpy)	9.1	kJ/m ²	ISO 179-1/1eU	fracture

*1 mechanical testing on injection molded and standardized multipurpose test specimens (DIN EN ISO 527, Type 1A) conducted at standardized climate (23 °C, 50 % rel. humidity)

2 Thermal properties

Material property	Value	Unit	Test method	Comment
Melt Flow Rate (MFR)	23	g / 10 min	DIN EN ISO 1133	(190 °C / 2.16 kg)
Melt Volume-flow Rate (MVR)	28	cm ³ / 10 min	DIN EN ISO 1133	(190 °C / 2.16 kg)
Melting range	≥ 155	°C	-	DSC, 10 °C / min
Vicat Softening Temperature (VST)	97	°C	DIN EN ISO 306	A50 (10 N, 50 °C / h)*1
Heat deflection temperature (HDT)	54	°C	DIN EN ISO 75-2	B (0.45 MPa)*2

*1 VST-Values with deviations of >2 °C due to a combination of structural heterogeneity of the material and the utilized small area (1 mm²) of the Vicat needle
 *2 at 68 g minimum load (minimum load according to DIN EN ISO 75-2: 64 g)

3 Sonstige Eigenschaften

Material property	Value	Unit	Test method	Comment
Color	nature / brownish	-	-	colorable
Density	1.26	g / cm ³	-	Injection molded part
Bulk density	600	kg / m ³		
Water absorption capacity	< 0,5	%	DIN EN ISO 62	Related to dry sample
Primary processing method				Injection molding

4 Disclaimer

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