Vitane R 3918

TPU-GF20 — geba Kunststoffcompounds GmbH

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	**0.5**	%	ISO 294-4, 2577
Molding shrinkage, normal	**0.1**	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Strain at break	**20**	%	ISO 527
Flexural modulus, 23°C	**1600**	MPa	ISO 178
Flexural modulus	**4000**	MPa	ISO 178
Flexural modulus temperature	**-30**	°C	-
Flexural strength	**56**	MPa	ISO 178
Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**75**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**58**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**8.5**	kJ/m²	ISO 179/1eA
Abrasion resistance	**65**	mm³	ISO 4649
Shore D hardness	**69**	-	ISO 7619-1

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**127**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**155**	°C	ISO 75-1/-2
Vicat softening temperature, B	**125**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**7**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**131**	E-6/K	ISO 11359-1/-2

Other properties	Value	Unit	Test Standard
Density	**1290**	kg/m³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	**220**	°C	ISO 294
Injection Molding, mold temperature	**60**	°C	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**120**	°C	-
Pre-drying - Time	**3 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**210 - 240**	°C	-
Mold temperature	**40 - 80**	°C	-
Feed temperature	**60 - 80**	°C	-
Zone 1	**210 - 220**	°C	-
Zone 2	**210 - 220**	°C	-
Zone 3	**220 - 230**	°C	-
Nozzle temperature	**230 - 240**	°C	-

Characteristics

Processing
Injection Molding

Applications
Automotive, Sports Equipment

Features
Acoustical Barrier Properties, Good Adhesion, Thermal Stability

Regional Availability
Europe

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Chemical Resistance

Oil Resistance

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