

Vitane R 3918

TPU-GF20

geba Kunststoffcompounds GmbH

Rheological properties	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
Impact Strength (Charpy), +23°C	no break	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	75	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	58	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	8.5	kJ/m²	ISO 179/1eA
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
Abrasion resistance	65	mm³	ISO 4649
Shore Hardness D (15s)	69	-	ISO 868

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, 50°C/h 50N	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
ISO Data			
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

Chemical Resistance

Oil Resistance

Features

Acoustical Barrier Properties, Good Adhesion, Thermal Stability

Applications

Automotive, Sports Equipment