TechnoFiber PP LGF 50-10-01 HI

Polypropylene

TechnoCompound GmbH

Message:

TechnoFiber: Strong and light

TechnoFiber products are long glass fiber remforced thermoplastics made by TechnoCompound GmbH. These raw materials are fashioned into so-called tailor-made compounds upon customer specifications. Nearly all semi-crystalline and amorphous thermoplastics can be used as thermoplastic matrlx. Our long glass fiber products are predestmed for the manufacturing of components which are exposed to extreme mechanical stress - as well as to high temperatures. The long glass fiber reinforced pellets are available in lengths of 10 - 25 mm. Fiber and pellet are of the same length. The two-step pultrusion technology applied by TechnoCompound coats each glass fiber fllament with a polymer matrrx and JOINS flber and matrrx. Typical Applications

Automobil: Automotive industry: battery holders, wheel covers, ash trays, engine insulation, gear shift sticks, electronic accelerator pedals, exhaust trims, instrument panel...

Electrical engineering: casings for power tools...

Leisure industry: snowboard bindings...

Construction industry: wear-resistant conveyor belts

Furniture industry: fittings, chair frames, hinges...

General Information	
Filler / Reinforcement	Long glass fiber, 50% filler by weight
Additive	UV stabilizer
Features	UV Stabilized
	Semicrystallization
	Low volatilization
	High strength
	Impact resistance, high
	Heat resistance, high
	amorphous
Uses	Conveyor
	Battery box
	Electrical/Electronic Applications
	Power/other tools
	Furniture
	Architectural application field
	Accessories
	Application in Automobile Field
	Car dashboard
	Sporting goods
Appearance	Black
	Available colors
	Natural color

Density 1.31 g/cm³ ISO 1183 shrinkage-Flow ¹ 0.20 % ISO 294-4 Mechanical Nominal Value Unit Test Method Tensile Modulus 11200 MPa ISO 527-2/1 Tensile Stress (Yield) 125 MPa ISO 527-2/50 Tensile Stress (Yield) 2.1 % ISO 527-2/50 Flexural Modulus ² 11200 MPa ISO 178 Flexural Stress ³ 140 MPa ISO 178 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 22 kJ/m² ISO 179/1eA -30°C 23 kJ/m² ISO 179/1eA 23°C 23 kJ/m² ISO 179/1eA -30°C 60 kJ/m² ISO 179/1eU 23°C 60 kJ/m² ISO 179/1eU Thermal Nominal Value Unit Test Method Heat Defiction Temperature 60 kJ/m² ISO 175-2/B 1.8 MPa, not annealed 160	Forms	Particle			
shrinkage-Flow 1 0.20 % ISO 294-4 Mechanical Nominal Value Unit Test Method Tensile Modulus 11200 MPa ISO 527-2/1 Tensile Stress (Yield) 125 MPa ISO 527-2/50 Tensile Stress (Yield) 2.1 % ISO 527-2/50 Flexural Modulus 2 11200 MPa ISO 178 Flexural Stress 3 140 MPa ISO 178 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 2 L/m² ISO 179/1eA -30°C 23 L/m² ISO 179/1eA 23°C 23 L/m² ISO 179/1eA -30°C 60 k/m² ISO 179/1eA 23°C 150 179/1eA ISO 179/1eA	Physical	Nominal Value	Unit	Test Method	
Mechanical Nominal Value Unit Test Method Tensile Modulus 11200 MPa ISO 527-2/1 Tensile Stress (Yield) 125 MPa ISO 527-2/50 Tensile Strain (Yield) 2.1 % ISO 527-2/50 Flexural Modulus 2 11200 MPa ISO 178 Flexural Stress 3 140 MPa ISO 178 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength 50 179/1eA 150 179/1eA -30°C 22 KJ/m² ISO 179/1eA 23°C 23 KJ/m² ISO 179/1eU -30°C 23 KJ/m² ISO 179/1eU -30°C 60 KJ/m² ISO 179/1eU 23°C 60 KJ/m² ISO 179/1eU -30°C 60 KJ/m² ISO 179/1eU Thermal Nominal Value Unit Test Method Het at Deflection Temperature 60 KJ/m² ISO 75-2/E 1.8 MPa, not annealed 150 °C	Density	1.31	g/cm³	ISO 1183	
Tensile Modulus	shrinkage-Flow ¹	0.20	%	ISO 294-4	
Tensile Stress (Yieldy) 125 MPa ISO 527-2/50 Tensile Strain (Yieldy) 2.1 % ISO 527-2/50 Flexural Modulus ² 11200 MPa ISO 178 Flexural Stress ³ 140 MPa ISO 178 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength ISO 179/1eA ISO 179/1eA -30°C 22 kJ/m² ISO 179/1eA 23°C 23 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength ISO 179/1eU ISO 179/1eU -30°C 60 kJ/m² ISO 179/1eU 23°C 60 kJ/m² ISO 179/1eU Thermal Nominal Value Unit Test Method Heat Deflection Temperature Unit Test Method 1.8 MPa, not annealed 150 °C ISO 75-2/B 8.0 MPa, not annealed 130 °C ISO 1357-3 Linear thermal expansion coefficient ISO 1359-2 ISO 1359-2 Flow: 23 to 80°C 1.3E-5 cm	Mechanical	Nominal Value	Unit	Test Method	
Tensile Strain (Yield) 2.1 % ISO 527-2/50 Flexural Modulus 2 11200 MPa ISO 178 Flexural Stress 3 140 MPa ISO 178 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength ISO 179/1eA ISO 179/1eA -30°C 22 KJ/m² ISO 179/1eA Charpy Unnotched Impact Strength ISO 179/1eU ISO 179/1eU -30°C 60 kJ/m² ISO 179/1eU 23°C 60 kJ/m² ISO 179/1eU Thermal Nominal Value Unit Test Method Heat Deflection Temperature Unit Test Method 1.8 MPa, not annealed 160 °C ISO 75-2/B 1.8 MPa, not annealed 151 °C ISO 75-2/B 8.0 MPa, not annealed 130 °C ISO 1357-3 Linear thermal expansion coefficient ISO 1359-2 ISO 11359-2 Flow: 23 to 80°C 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 220°C / WZ 40°C, 600 bar<	Tensile Modulus	11200	МРа	ISO 527-2/1	
Flexural Modulus 2 11200 MPa ISO 178 Flexural Stress 3 140 MPa ISO 178 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength ISO 179/1eA ISO 179/1eA -30°C 22 kl/m² ISO 179/1eA Charpy Unnotched Impact Strength ISO 179/1eU ISO 179/1eU -30°C 60 kl/m² ISO 179/1eU 23°C 60 kl/m² ISO 179/1eU Thermal Nominal Value Unit Test Method Heat Deflection Temperature Unit Test Method 1.8 MPa, not annealed 160 °C ISO 75-2/B 1.8 MPa, not annealed 151 °C ISO 75-2/B 8.0 MPa, not annealed 130 °C ISO 75-2/C Melting Temperature 4 165 °C ISO 11357-3 Linear thermal expansion coefficient ISO 11359-2 ISO 11359-2 Incard: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 NOTE 20°C / WZ 40°C, 600 bar	Tensile Stress (Yield)	125	МРа	ISO 527-2/50	
Flexural Stress 3	Tensile Strain (Yield)	2.1	%	ISO 527-2/50	
Impact Nominal Value Unit Test Method Charpy Notched Impact Strength ISO 179/1eA 1SO 179/1eA -30°C 22 kJ/m² ISO 179/1eA 23°C 23 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength ISO 179/1eU 1SO 179/1eU -30°C 60 kJ/m² ISO 179/1eU 23°C 60 kJ/m² ISO 179/1eU Thermal Nominal Value Unit Test Method Heat Deflection Temperature Unit Test Method 1.8 MPa, not annealed 160 °C ISO 75-2/B 1.8 MPa, not annealed 151 °C ISO 75-2/A 8.0 MPa, not annealed 130 °C ISO 11357-3 Linear thermal expansion coefficient "C ISO 11357-3 Linear thermal expansion coefficient ISO 11359-2 Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 NOTE 220°C / WZ 40°C, 600 bar L L 2.0 mm/min 2.0 mm/min L L	Flexural Modulus ²	11200	МРа	ISO 178	
Charpy Notched Impact Strength ISO 179/1eA -30°C 22 kJ/m² ISO 179/1eA 23°C 23 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength ISO 179/1eU ISO 179/1eU -30°C 60 kJ/m² ISO 179/1eU 23°C 60 kJ/m² ISO 179/1eU Thermal Nominal Value Unit Test Method Heat Deflection Temperature 0.45 MPa, not annealed 160 °C ISO 75-2/B 1.8 MPa, not annealed 151 °C ISO 75-2/C Melting Temperature 4 165 °C ISO 11357-3 Linear thermal expansion coefficient ISO 11359-2 ISO 11359-2 Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 Lateral: 23 to 80°C 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 220°C / WZ 40°C, 600 bar SO mm/min	Flexural Stress ³	140	МРа	ISO 178	
SO 179/1eA 22 KJ/m² ISO 179/1eA 23°C 23 KJ/m² ISO 179/1eA ISO 179/1eA ISO 179/1eA ISO 179/1eA ISO 179/1eU ISO 179/1e	Impact	Nominal Value	Unit	Test Method	
23°C 23	Charpy Notched Impact Strength	ISO 179/1eA			
Charpy Unnotched Impact Strength ISO 179/1eU -30°C 60 kJ/m² ISO 179/1eU 23°C 60 kJ/m² ISO 179/1eU Thermal Nominal Value Unit Test Method Heat Deflection Temperature 0.45 MPa, not annealed 160 °C ISO 75-2/B 1.8 MPa, not annealed 151 °C ISO 75-2/A 8.0 MPa, not annealed 130 °C ISO 75-2/C Melting Temperature ⁴ 165 °C ISO 11357-3 Linear thermal expansion coefficient ISO 11359-2 ISO 11359-2 Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 NOTE 220°C / WZ 40°C, 600 bar ISO 11359-2 ISO 11359-2 2.0 mm/min 2.0 mm/min ISO 100 mm/min ISO 11359-2	-30°C	22	kJ/m²	ISO 179/1eA	
-30°C 60 kJ/m² ISO 179/1eU 23°C 60 kJ/m² ISO 179/1eU Thermal Nominal Value Unit Test Method Heat Deflection Temperature 0.45 MPa, not annealed 160 °C ISO 75-2/B 1.8 MPa, not annealed 151 °C ISO 75-2/A 8.0 MPa, not annealed 130 °C ISO 75-2/C ISO 75-2/C Melting Temperature 165 °C ISO 11357-3 Linear thermal expansion coefficient ISO 11359-2 Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 NOTE 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 2.0 mm/min 2.0 mm/min 3.0 m	23°C	23	kJ/m²	ISO 179/1eA	
23°C 60 kJ/m² ISO 179/1eU Thermal Nominal Value Unit Test Method Heat Deflection Temperature 0.45 MPa, not annealed 160 °C ISO 75-2/B 1.8 MPa, not annealed 151 °C ISO 75-2/A 8.0 MPa, not annealed 130 °C ISO 75-2/C Melting Temperature 165 °C ISO 11357-3 Linear thermal expansion coefficient ISO 11359-2 Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 Lateral: 23 to 80°C 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 220°C / WZ 40°C, 600 bar 2.0 mm/min 3.	Charpy Unnotched Impact Strength	ISO 179/1eU			
Thermal Nominal Value Unit Test Method Heat Deflection Temperature 0.45 MPa, not annealed 160 °C ISO 75-2/B 1.8 MPa, not annealed 151 °C ISO 75-2/A 8.0 MPa, not annealed 130 °C ISO 75-2/C Melting Temperature 4 165 °C ISO 11357-3 Linear thermal expansion coefficient ISO 11359-2 ISO 11359-2 Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 Lateral: 23 to 80°C 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 220°C / WZ 40°C, 600 bar 2.0 mm/min 2. 2.0 mm/min 5.0 mm/min	-30°C	60	kJ/m²	ISO 179/1eU	
Heat Deflection Temperature	23°C	60	kJ/m²	ISO 179/1eU	
0.45 MPa, not annealed 160 °C ISO 75-2/B 1.8 MPa, not annealed 151 °C ISO 75-2/A 8.0 MPa, not annealed 130 °C ISO 75-2/C Melting Temperature ⁴ 165 °C ISO 11357-3 Linear thermal expansion coefficient ISO 11359-2 ISO 11359-2 Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 Lateral: 23 to 80°C 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 1. 220°C / WZ 40°C, 600 bar 2. 2.0 mm/min 3. 5.0 mm/min	Thermal	Nominal Value	Unit	Test Method	
1.8 MPa, not annealed 151 °C ISO 75-2/A 8.0 MPa, not annealed 130 °C ISO 75-2/C Melting Temperature 4 165 °C ISO 11357-3 Linear thermal expansion coefficient ISO 11359-2 ISO 11359-2 Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 Lateral: 23 to 80°C 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 1. 220°C / WZ 40°C, 600 bar 2. 2.0 mm/min 3. 5.0 mm/min	Heat Deflection Temperature				
8.0 MPa, not annealed 130 °C ISO 75-2/C Melting Temperature 4 165 °C ISO 11357-3 Linear thermal expansion coefficient ISO 11359-2 Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 Lateral: 23 to 80°C 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 1. 220°C / WZ 40°C, 600 bar 2. 2.0 mm/min 3. 5.0 mm/min	0.45 MPa, not annealed	160	°C	ISO 75-2/B	
Melting Temperature 4 165 °C ISO 11357-3 Linear thermal expansion coefficient ISO 11359-2 Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 Lateral: 23 to 80°C 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 1. 220°C / WZ 40°C, 600 bar 2. 2.0 mm/min 3. 5.0 mm/min	1.8 MPa, not annealed	151	°C	ISO 75-2/A	
Linear thermal expansion coefficient ISO 11359-2 Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 Lateral: 23 to 80°C 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 1. 220°C / WZ 40°C, 600 bar 2. 2.0 mm/min 3. 5.0 mm/min	8.0 MPa, not annealed	130	°C	ISO 75-2/C	
Flow: 23 to 80°C 1.3E-5 cm/cm/°C ISO 11359-2 Lateral: 23 to 80°C 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 1. 220°C / WZ 40°C, 600 bar 2. 2.0 mm/min 3. 5.0 mm/min	Melting Temperature ⁴	165	°C	ISO 11357-3	
Lateral: 23 to 80°C 1.7E-5 cm/cm/°C ISO 11359-2 NOTE 1. 220°C / WZ 40°C, 600 bar 2. 2.0 mm/min 3. 5.0 mm/min	Linear thermal expansion coefficient			ISO 11359-2	
NOTE 1.	Flow: 23 to 80°C	1.3E-5	cm/cm/°C	ISO 11359-2	
1. 220°C / WZ 40°C, 600 bar 2. 2.0 mm/min 3. 5.0 mm/min	Lateral: 23 to 80°C	1.7E-5	cm/cm/°C	ISO 11359-2	
2. 2.0 mm/min 3. 5.0 mm/min	NOTE				
3. 5.0 mm/min	1.	220°C / WZ 40°C, 600 bar			
	2.	2.0 mm/min			
4. 10°C/min	3.	5.0 mm/min			
	4.	10°C/min			

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