**Property Data** 



Print Date: 2024-12-06

## Pocan<sup>®</sup> A3121

(PBT+PET+ASA)-GF20

20% Glass Reinforced, Injection Molding, Excellent Surface Properties, Low Warpage

RHEOLOGICAL PROPERTIES         VALUE           Melt volume—flow rate         20         cm³/10min         ISO 1133           Temperature         270         °C         ISO 1133           Load         2.16         kg         ISO 1133           Load         2.16         kg         ISO 1133           Molding shrinkage (normal)         0.7         %         ISO 294-4           Molding shrinkage (parallel)         0.3         %         ISO 294-4           Molding shrinkage (parallel)         0.3         %         ISO 294-4           MECHANICAL PROPERTIES         VALUE         Tensile modulus         To000         MPa         ISO 527-1/-2           Stress at break         110         MPa         ISO 527-1/-2         Strain at break         2.9         %         ISO 527-1/-2           Strain at break         2.9         %         ISO 527-1/-2         Strain at break         130         MPa         ISO 527-1/-2           Flexural modulus         7000         MPa         ISO 178         Flexural strength         170         MPa         ISO 178           Flexural strength (+23°C)         55         kJ/m²         ISO 179/1eU         Charpy impact strength (+23°C)         50         kJ/m²         ISO 180/1U </th <th>PROPERTIES</th> <th>TYPICAL DATA</th> <th>UNIT</th> <th>TEST METHOD</th>	PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Melt volume-flow rate         20         cm³/10min         ISO 1133           Temperature         270         °C         ISO 1133           Load         2.16         kg         ISO 1133           Molding shrinkage (normal)         0.7         %         ISO 294-4           Molding shrinkage (parallel)         0.3         %         ISO 294-4           Molding shrinkage (parallel)         0.3         %         ISO 294-4           MECHANICAL PROPERTIES         VALUE             Tensile modulus         7000         MPa         ISO 527-1/-2           Stress at break         110         MPa         ISO 527-1/-2           Strain at break         2.9         %         ISO 527-1/-2           Flexural modulus         7000         MPa         ISO 527-1/-2           Strain at break         2.9         %         ISO 527-1/-2           Flexural strength         170         MPa         ISO 178           Flexural strength         3.2         %         ISO 178-1           Flexural strength (+23°C)         55         kJ/m²         ISO 179/1eU           Charpy impact strength (-30°C)         40         kJ/m²         ISO 180/10           Izod impact strength (-3	RHEOLOGICAL PROPERTIES	VALUE		
Load         2.16         kg         ISO 1133           Molding shrinkage (normal)         0.7         %         ISO 294-4           Molding shrinkage (parallel)         0.3         %         ISO 294-4           Molding shrinkage (parallel)         0.3         %         ISO 294-4           MECHANICAL PROPERTIES         VALUE		20	cm³/10min	ISO 1133
Molding shrinkage (normal)         0.7         %         ISO 294–4           Molding shrinkage (parallel)         0.3         %         ISO 294–4           MECHANICAL PROPERTIES         VALUE           Tensile modulus         7000         MPa         ISO 527–1/–2           Stress at break         110         MPa         ISO 527–1/–2           Strain at break         2.9         %         ISO 527–1/–2           Flexural modulus         7000         MPa         ISO 527–1/–2           Flexural storeak         2.9         %         ISO 527–1/–2           Flexural modulus         7000         MPa         ISO 178           Flexural storeagth         170         MPa         ISO 178           Flexural strength         3.2         %         ISO 179/1eU           Charpy impact strength (+23°C)         55         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         40         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         45         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         45         kJ/m²         ISO 180–1U           Temp. of deflection under load (1.80 MPa)         175         °C         ISO 75–1/–2	Temperature	270	°C	ISO 1133
Molding shrinkage (parallel)         0.3         %         ISO 294–4           Mechanical properties         Value           Tensile modulus         7000         MPa         ISO 527–1/–2           Stress at break         110         MPa         ISO 527–1/–2           Strain at break         2.9         %         ISO 527–1/–2           Strain at break         2.9         %         ISO 527–1/–2           Flexural modulus         7000         MPa         ISO 527–1/–2           Flexural modulus         7000         MPa         ISO 527–1/–2           Flexural modulus         7000         MPa         ISO 178           Flexural strength         170         MPa         ISO 178           Flexural strength         3.2         %         ISO 179/1eU           Charpy impact strength (+23°C)         55         kJ/m²         ISO 179/1eU           Charpy impact strength (-30°C)         40         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         50         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         45         kJ/m²         ISO 180–1U           Thermold (1.80 MPa)         175         °C         ISO 75–1/–2           Temp. of deflection under	Load	2.16	kg	ISO 1133
MECHANICAL PROPERTIES         VALUE           Tensile modulus         7000         MPa         ISO 527-1/-2           Stress at break         110         MPa         ISO 527-1/-2           Strain at break         2.9         %         ISO 527-1/-2           Strain at break         2.9         %         ISO 527-1/-2           Flexural modulus         7000         MPa         ISO 527-1/-2           Flexural strength         3.2         %         ISO 178           Flexural strength         170         MPa         ISO 178           Flexural strength (+23°C)         55         kJ/m²         ISO 179/1eU           Charpy impact strength (+23°C)         50         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         40         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         45         kJ/m²         ISO 180-1U           THERMAL PROPERTIES <td< td=""><td>Molding shrinkage (normal)</td><td>0.7</td><td>%</td><td>ISO 294–4</td></td<>	Molding shrinkage (normal)	0.7	%	ISO 294–4
Tensile modulus       7000       MPa       ISO 527-1/-2         Stress at break       110       MPa       ISO 527-1/-2         Strain at break       2.9       %       ISO 527-1/-2         Flexural modulus       7000       MPa       ISO 527-1/-2         Flexural modulus       7000       MPa       ISO 527-1/-2         Flexural modulus       7000       MPa       ISO 178         Flexural strength       170       MPa       ISO 178         Flexural strength       3.2       %       ISO 178-A         Charpy impact strength (+23°C)       55       kJ/m²       ISO 179/1eU         Charpy impact strength (-30°C)       40       kJ/m²       ISO 179/1eU         Izod impact strength (-30°C)       40       kJ/m²       ISO 180/1U         Izod impact strength (-30°C)       45       kJ/m²       ISO 180/1U         Izod impact strength (-30°C)       45       kJ/m²       ISO 180/1U         Izod impact strength (-30°C)       45       kJ/m²       ISO 180-1U         Temp. of deflection under load (180 MPa)       175       °C       ISO 75-1/-2         Temp. of deflection under load (0.45 MPa)       215       °C       ISO 1359-1/-2         Coeff. of linear therm. expansion (par	Molding shrinkage (parallel)	0.3	%	ISO 294-4
Tensile modulus       7000       MPa       ISO 527-1/-2         Stress at break       110       MPa       ISO 527-1/-2         Strain at break       2.9       %       ISO 527-1/-2         Flexural modulus       7000       MPa       ISO 527-1/-2         Flexural modulus       7000       MPa       ISO 527-1/-2         Flexural modulus       7000       MPa       ISO 178         Flexural strength       170       MPa       ISO 178         Flexural strength       3.2       %       ISO 178-A         Charpy impact strength (+23°C)       55       kJ/m²       ISO 179/1eU         Charpy impact strength (-30°C)       40       kJ/m²       ISO 179/1eU         Izod impact strength (-30°C)       40       kJ/m²       ISO 180/1U         Izod impact strength (-30°C)       45       kJ/m²       ISO 180-1U         Temp. of deflection under load (180 MPa)       175< °C				
Stress at break         110         MPa         ISO 527-1/-2           Strain at break         2.9         %         ISO 527-1/-2           Flexural modulus         7000         MPa         ISO 527-1/-2           Flexural modulus         7000         MPa         ISO 178           Flexural strength         170         MPa         ISO 178           Flexural strength         3.2         %         ISO 178-A           Charpy impact strength (+23°C)         55         kJ/m²         ISO 179/1eU           Charpy impact strength (-30°C)         40         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         45	MECHANICAL PROPERTIES	VALUE		
Strain at break         2.9         %         ISO 527-1/-2           Flexural modulus         7000         MPa         ISO 178           Flexural strength         170         MPa         ISO 178           Flexural strength         3.2         %         ISO 178-A           Charpy impact strength (+23°C)         55         kJ/m²         ISO 179/1eU           Charpy impact strength (-30°C)         40         kJ/m²         ISO 179/1eU           Izod impact strength (+23°C)         50         kJ/m²         ISO 179/1eU           Izod impact strength (-30°C)         40         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         45         kJ/m²         ISO 180-1U           Temp. of deflection under load (1.80 MPa)         175         °C         ISO 75-1/-2           Temp. of deflection under load (0.45 MPa)         215         °C         ISO 11359-1/-2           Coeff. of linear therm. expansion (parallel)         0.3         E-4/°C         ISO 11359-1/-2 <td>Tensile modulus</td> <td>7000</td> <td>MPa</td> <td>ISO 527-1/-2</td>	Tensile modulus	7000	MPa	ISO 527-1/-2
Flexural modulus         7000         MPa         ISO 178           Flexural strength         170         MPa         ISO 178           Flexural strength         3.2         %         ISO 178–A           Charpy impact strength (+23°C)         55         kJ/m²         ISO 179/1eU           Charpy impact strength (-30°C)         40         kJ/m²         ISO 179/1eU           Izod impact strength (+23°C)         50         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         45         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         45         kJ/m²         ISO 180–1U           Texp. of deflection under load (1.80 MPa)         175         °C         ISO 75–1/–2           Temp. of deflection under load (0.45 MPa)         215         °C         ISO 11359–1/–2           Coeff. of linear therm. expansion (parallel)         0.3         E–4/°C         ISO 11359–1/–2	Stress at break	110	MPa	ISO 527-1/-2
Flexural strength         170         MPa         ISO 178           Flexural strain at flexural strength         3.2         %         ISO 178–A           Charpy impact strength (+23°C)         55         kJ/m²         ISO 179/1eU           Charpy impact strength (-30°C)         40         kJ/m²         ISO 179/1eU           Izod impact strength (+23°C)         50         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         45         kJ/m²         ISO 180/1U           Izod impact strength (-30°C)         215         °C         ISO 75–1/–2           Temp. of deflection under load (0.45 MPa)         215         °C         ISO 11359–1/–2           Coeff. of linear therm. expansion (parallel)         0.3         E–4/°C         ISO	Strain at break	2.9	%	ISO 527-1/-2
Flexural strain at flexural strength       3.2       %       ISO 178–A         Charpy impact strength (+23°C)       55       kJ/m²       ISO 179/1eU         Charpy impact strength (-30°C)       40       kJ/m²       ISO 179/1eU         Izod impact strength (+23°C)       50       kJ/m²       ISO 180/1U         Izod impact strength (-30°C)       45       kJ/m²       ISO 180/1U         Izod impact strength (-30°C)       215       °C       ISO 75–1/–2         Temp. of deflection under load (0.45 MPa)       215       °C       ISO 11359–1/–2         Coeff. of linear therm. expansion (parallel)       0.3       E–4/°C       ISO 11359–1/–2 <td>Flexural modulus</td> <td>7000</td> <td>MPa</td> <td>ISO 178</td>	Flexural modulus	7000	MPa	ISO 178
Charpy impact strength (+23°C)       55       kJ/m²       ISO 179/1eU         Charpy impact strength (-30°C)       40       kJ/m²       ISO 179/1eU         Izod impact strength (+23°C)       50       kJ/m²       ISO 180/1U         Izod impact strength (-30°C)       45       kJ/m²       ISO 180/1U         Izod impact strength (-30°C)       45       kJ/m²       ISO 180–1U         Temp. of deflection under load (1.80 MPa)       175       °C       ISO 75–1/–2         Temp. of deflection under load (0.45 MPa)       215       °C       ISO 75–1/–2         Coeff. of linear therm. expansion (parallel)       0.3       E–4/°C       ISO 11359–1/–2	Flexural strength	170	MPa	ISO 178
Charpy impact strength (-30°C)40kJ/m²ISO 179/1eUIzod impact strength (+23°C)50kJ/m²ISO 180/1UIzod impact strength (-30°C)45kJ/m²ISO 180–1UTHERMAL PROPERTIESVALUETemp. of deflection under load (1.80 MPa)175°CISO 75–1/–2Temp. of deflection under load (0.45 MPa)215°CISO 75–1/–2Coeff. of linear therm. expansion (parallel)0.3E–4/°CISO 11359–1/–2	Flexural strain at flexural strength	3.2	%	ISO 178-A
Ized impact strength (+23°C)       50       kJ/m²       ISO 180/1U         Ized impact strength (-30°C)       45       kJ/m²       ISO 180–1U         THERMAL PROPERTIES       VALUE         Temp. of deflection under load (1.80 MPa)       175       °C       ISO 75–1/–2         Temp. of deflection under load (0.45 MPa)       215       °C       ISO 75–1/–2         Coeff. of linear therm. expansion (parallel)       0.3       E–4/°C       ISO 11359–1/–2	Charpy impact strength (+23°C)	55	kJ/m²	ISO 179/1eU
Izod impact strength (-30°C)45kJ/m²ISO 180–1UTHERMAL PROPERTIESVALUETemp. of deflection under load (1.80 MPa)175°CISO 75–1/–2Temp. of deflection under load (0.45 MPa)215°CISO 75–1/–2Coeff. of linear therm. expansion (parallel)0.3E–4/°CISO 11359–1/–2	Charpy impact strength (-30°C)	40	kJ/m²	ISO 179/1eU
THERMAL PROPERTIESVALUETemp. of deflection under load (1.80 MPa)175°CISO 75-1/-2Temp. of deflection under load (0.45 MPa)215°CISO 75-1/-2Coeff. of linear therm. expansion (parallel)0.3E-4/°CISO 11359-1/-2	Izod impact strength (+23°C)	50	kJ/m²	ISO 180/1U
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Temp. of deflection under load (0.45 MPa)215°CISO 75-1/-2Coeff. of linear therm. expansion (parallel)0.3E-4/°CISO 11359-1/-2	THERMAL PROPERTIES	VALUE		
Coeff. of linear therm. expansion (parallel)Ø.3E-4/°CISO 11359-1/-2	Temp. of deflection under load (1.80 MPa)	175	°C	ISO 75-1/-2
	Temp. of deflection under load (0.45 MPa)	215	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (normal)0.9E-4/°CISO 11359-1/-2	Coeff. of linear therm. expansion (parallel)	0.3	E-4/°C	ISO 11359-1/-2
	Coeff. of linear therm. expansion (normal)	0.9	E-4/°C	ISO 11359-1/-2

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## Print Date: 2024-12-06

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Burning Behav. at 0.75 mm nom. thickn.	НВ	class	IEC 60695-11-10
Thickness tested	0.75	mm	IEC 60695-11-10
Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
ELECTRICAL PROPERTIES	VALUE		
Comparative tracking index	250	V	IEC 60112
OTHER PROPERTIES	VALUE		
Water absorption	0.4	%	Sim. to ISO 62
Humidity absorption	0.1	%	Sim. to ISO 62
Density	1430	kg∕m³	ISO 1183
PROCESSING RECOMMENDATIONS	VALUE		
Drying temperature circulating air dryer	120	°C	
Drying time circulating air dryer	4–8	h	
Residual moisture content	0.00-0.02	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	260–280	°C	
Mold temperature	80–100	°C	

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