# Beetle® PBTS145F

## Polybutylene Terephthalate

### Teknor Apex Company (Chem Polymer)

#### Message:

PBTC115F is a reinforced PBT/PET alloy containing 15% glass fiber. It achieves the best balance of mechanical properties and heat resistance, with excellent surface finish and mold release.

General Information				
Filler / Reinforcement	Glass fiber reinforced material, 45% filler by weight			
Features	Good demoulding performance			
Forms	Particle			
Processing Method	Injection molding			
Physical	Nominal Value	Unit	Test Method	
Density	1.65	g/cm³	ISO 1183	
Molding Shrinkage <sup>1</sup>	0.50 - 1.0	%	Internal method	
Water Absorption (Equilibrium, 23°C, 50% RH)	0.060	%	ISO 62	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Modulus	12000	MPa	ISO 527-2	
Tensile Stress (Yield)	160	MPa	ISO 527-2	
Tensile Strain (Break)	2.0	%	ISO 527-2	
Flexural Modulus	10000	MPa	ISO 178	
Flexural Stress	220	MPa	ISO 178	
Impact	Nominal Value	Unit	Test Method	
Charpy Notched Impact Strength	11	kJ/m²	ISO 179	
Charpy Unnotched Impact Strength	50	kJ/m²	ISO 179	
Notched Izod Impact	10	kJ/m²	ISO 180	
Unnotched Izod Impact Strength	50	kJ/m²	ISO 180	
Thermal	Nominal Value	Unit	Test Method	
Heat Deflection Temperature				
0.45 MPa, not annealed	> 200	°C	ISO 75-2/B	
1.8 MPa, not annealed	> 200	°C	ISO 75-2/A	
Electrical	Nominal Value	Unit	Test Method	
Surface Resistivity	1.0E+16	ohms	IEC 60093	
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093	
Dielectric Strength (3.00 mm)	16	kV/mm	IEC 60243-1	
Relative Permittivity	3.60		IEC 60250	
Dissipation Factor (1 MHz)	0.010		IEC 60250	
Comparative Tracking Index	300	V	IEC 60112	
Flammability	Nominal Value	Unit	Test Method	
Flame Rating (1.50 mm)	НВ		Internal method	

Oxygen Index	20	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	4.0	hr	
Rear Temperature	240 - 260	°C	
Middle Temperature	240 - 260	°C	
Front Temperature	240 - 260	°C	
Processing (Melt) Temp	< 270	°C	
Mold Temperature	80.0 - 100	°C	
Injection Rate	Moderate		
Screw Speed	50 - 200	rpm	
Injection instructions			
背压:低注射压力:高			
NOTE			

Mould shrinkage is significantly influenced by many factors including wall thickness, gating, component shape and moulding conditions. The range values stated were determined from specimen bar mouldings of 1.5mm to 4mm wall thickness. They are provided as a guide for comparison purposes only and no guarantee should be inferred from their inclusion. (Specimens measured in the dry state, 24 hours after moulding).

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