

# CHANG CHUN PLASTICS CO., LTD.

NO. 301, SONGKIANG ROAD, 7<sup>TH</sup> FL., TAIPEI, 10477 TAIWAN  
TEL : 886-2-2503-8131 (REF) FAX : 886-2- 2501-8018

## Engineering Plastics Polybutylene Terephthalate

### PBT 4115-201D Technical Data

#### CCP PBT 4115-201D

PBT 4115-201D is a 15% glass fiber reinforced flame retarded injection molding grade.

#### Characteristics

- 1)excellent electrical property
- 2)excellent temperature resistance, high heat distortion temperature.
- 3)excellent mechanic and chemical property
- 4)excellent weatherability
- 5)excellent wear property
- 6)excellent moldability
- 7)High resistance to fuels, oil, fats and many solvents

#### Injection Molding Condition

Cylinder temperatures	: 235-270°C
Nozzle temperature	: 240-265°C
Mould temperature	: 40-120°C, suitable temperature 60-80°C
Injection rate	: middle - fast
Screw speed	: 60-120 rpm, to be chosen in such a way that plasticizing time is just within cooling time.
Pressure	Injection pressure : 500-1200 kg/cm <sup>2</sup>
	Holding pressure : 300-800 kg/cm <sup>2</sup>
	Back pressure : 0-3 kg/cm <sup>2</sup>
Mould shrinkage	Mould shrinkage 1.6 mm thickness horizon is 0.2-0.6% and vertical is 0.8-1.6% under the test method ISO 527.

#### Packaging

25 kg/ paper bag, 850 kg/ PP super sack

#### Material handing

Moisture pick-up from ambient air should be avoided. Keep hopper properly closed.

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### CCP PBT 4115-201D

Property	Value	Unit	Test method
Glass fiber content	15	%	
Density	1.53	g/cm <sup>3</sup>	ISO 1183
Melting point	225	°C	DSC
Heat deflection temperature under load			
--- 1.80 Mpa	200	°C	ISO 75
--- 0.45 Mpa	215	°C	ISO 75
Flammability acc. to UL94, 0.8 mm thickness	V-0		UL 94
Tensile stress	100	MPa	1SO 527
Tensile strain	2.5	%	1SO 527
Tensile modulus	6000	MPa	1SO 527
Flexural strength	140	MPa	1SO 178
Flexural modulus	4900	MPa	1SO 178
Charpy impact strength – notched, 23°C	6.5	KJ/m <sup>2</sup>	1SO 179
Charpy impact strength – notched, -30°C	6.5	KJ/m <sup>2</sup>	1SO 179
Charpy impact strength – unnotched, 23°C	20	KJ/m <sup>2</sup>	1SO 179
Charpy impact strength – unnotched, -30°C	20	KJ/m <sup>2</sup>	1SO 179
Izod impact strength – notched, 23°C	5.5	KJ/m <sup>2</sup>	1SO 180
Izod impact strength – notched, -30°C	5.5	KJ/m <sup>2</sup>	1SO 180
Izod impact strength – unnotched, 23°C	18	KJ/m <sup>2</sup>	1SO 180
Izod impact strength – unnotched, -30°C	18	KJ/m <sup>2</sup>	1SO 180
Dielectric strength, 2 mm thickness	22	KV/mm	IEC 243
Volume resistivity	10 <sup>15</sup>	Ω-cm	IEC 60093
Surface resistivity	10 <sup>13</sup>	Ω	IEC 60093
Arc resistance	90	sec	UL 746A

\* All data are the typical values of the material and not the minimum values of the material specifications.