

Thermx® PCT has the chemical resistance, processability and dimensional stability of engineering polyesters such as PET and PBT. It also benefits from improved heat resistance, fast moulding cycles offering a PBT drop in replacement with no tooling changes.

DuPont™ Thermx® PCT polyester is a high temperature polyester based on poly (cyclohexylene-dimethylene terephthalate) chemistry

Typical Thermx® PCT Applications

- FDA approved housewares • FDA approved cookware
- lighting components • computer chip carriers
- fuse holders • electrical housings • electrical connectors

Thermx® Standard Grades & Properties

- Glass-reinforced grades 20-40%
- Low warpage glass/mineral grades
- Flame retardant grades
- Re-flow and lead-free soldering grades
- High flow low-flash grades
- High arc resistance & CTI grades with good resistance to automotive and PCB cleaning chemicals

Thermx® Specialities

- FDA approved glass filled grades
- FDA approved high temperature grades
- FDA approved toughened grades

Typical Thermx® Properties

Properties		HDT	RTI	Flexural Modulus	Notched Izod Impact	Flammability	CTI
Standard		ISO 75	UL746B	ASTM D790	ASTM D256	UL 94	IEC 112
Units		°C	°C	MPa	J/m		V
CG033	30% glass reinforced	262	150*	8500	75	HB	560
CG933	30% glass reinforced and flame retardant	255	150*	9600	90	V0	440
FG30GT	30% Glass filled & toughened FDA approved	221	150*	6770	150	HB	N/A

*Untested RTI values but based on standard 30% glass filled PCT resins

Thermx® Processing & Handling Guide*

Grade	Melt Temp	Barrel Temperatures				Mould Temp	Screw Speed	Back Pressure	Drying Temp	Drying Time
		Rear	Middle	Front	Nozzle					
	°C	°C	°C	°C	°C	°C	m/s	Bar	°C	Hrs
CG033	295 ~ 310	285	290	295	300	80 ~ 120	fast	low	95	4 ~ 6
CG933	295 ~ 310	285	290	295	300	80 ~ 120	fast	low	95	4 ~ 6
FG30GT	295 ~ 310	285	290	295	300	150 ~ 175	fast	low	120 ~ 150	4 ~ 6

* This should only be used as a guide as part geometry, thickness, processing temperatures and rates will affect final cycle conditions

Purging

Empty the barrel for idle periods of 10 mins or longer. The best purge is achieved using a low flow HDPE. Polystyrene resins should not be used as these will decompose at high temperatures.

Recycling / Re-grind

The actual amount of re-grind which can be added must be determined for each part by testing. The UL yellow card listing allows for up to 50% re-grind, however the operational and

performance requirements of a moulded part can determine the amount of re-grind that can be acceptable.

Colouring

For colour effects contact Distrupol Colour.

Storage & Handling

Available in 25 kg bags, if left exposed will absorb moisture and may require more extensive drying.

Thermx® is a DuPont Registered trademark

Please refer to the individual processing guides and Material Safety Data Sheets for each grade prior to usage.

Full colour-matching service available.

