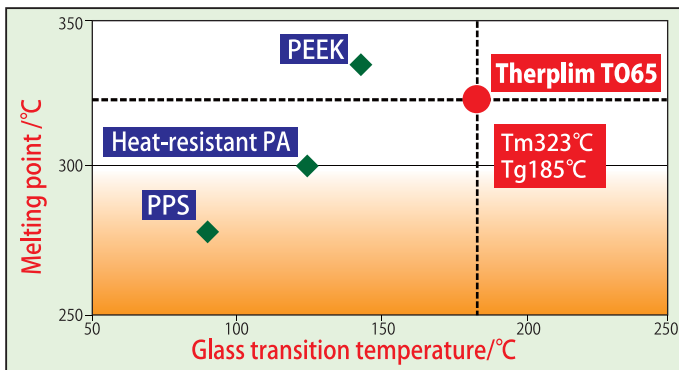
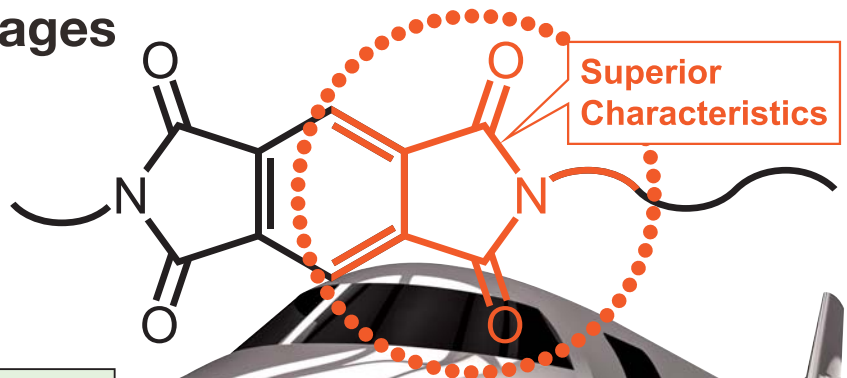


# "Therplim" Thermoplastic Polyimide

## ■ Structure and Advantages

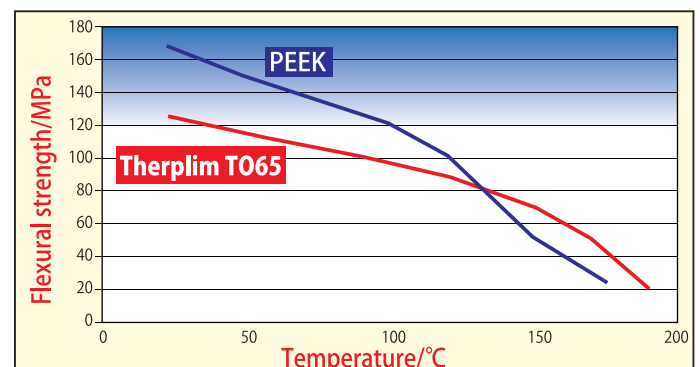
- Good moldability  
~ Moldable at 340~360°C ~
- High heat-resistance  
~ Tg higher than PEEK ~
- Semi-crystalline



- High strength
- Low water absorption  
~ as well as PEEK ~

- Stronger than PEEK over 100°C because of its high Tg.


	Unit	T065
Flexural Strength	Mpa	120
Flexural Modulus	Gpa	2.6
Tensile Strength	Mpa	80
Tensile Modulus	Gpa	2.5
Tensile Strain	%	21
Oxygen index	-	23.6
Water absorption	%	0.1
Permittivity (ε)	-	2.66 (10.GHz)



# Specialty Polyimide "Therplim"

■ **Molding Example** Therplim forms : pellet and powder (about 20μm).  
Therplim has good moldability and can be molded various shapes.

### Injection



- Injection Molding
  - barrel : 340~360°C
  - mold : 200°C
- Applications: gear, bearing, screw, Electronic-components.

### Film



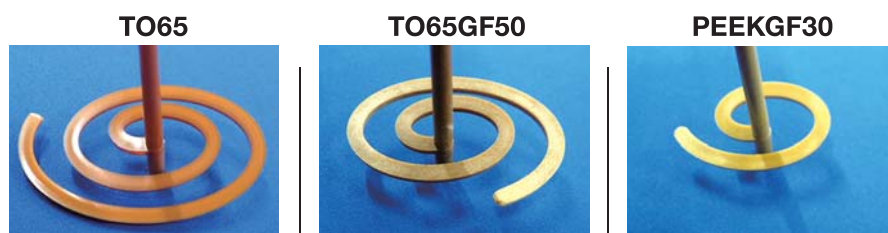
- Film Molding
  - single-screw extruder
  - barrel : 350~360°C
  - roll : 140~200°C

UL94VTM  
test : VTM-2 Level

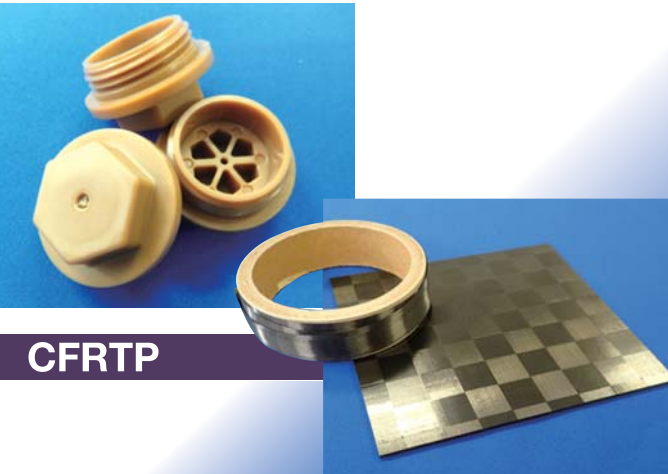
### ■ Melt Flow

TO65/TO65GF50 has good melt-flow property in a mold.  
⇒ Highly contents of filler can be compounded, for instance, GF60% and CF60% (volume of fiber).

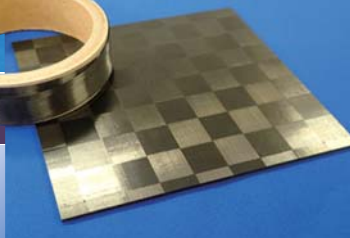
	Condition	Unit	TO65	TO65GF50	REFERENCE EXAMPLE	PEEKGF30
Flow length	100MPa	cm	<b>27.7</b>	<b>20.2</b>		10.7
	150MPa		<b>31.3</b>	<b>22.8</b>		11.0



### Cap



### CFRTP



### ■ Solvent resistance

High solvent resistance is derived from imide-group.

Solvent	TO65
Water	○
Methanol	○
Acetone	○
Toluene	○
Chloroform	△(swelling)
NMP	○
70%-H <sub>2</sub> SO <sub>4</sub>	○
98%-H <sub>2</sub> SO <sub>4</sub>	×
10%-NaOH	○
THF	○
Acetic anhydride	○

Contact  
&  
Information

**Mitsubishi Gas Chemical Europe GmbH**

Phone: +49-211-363080

E-Mail: [contact@mgc-europe.de](mailto:contact@mgc-europe.de)