Polyphenylene Sulfide (PPS)

DURAFIDE®

6565A7

HD9050

GF and Mineral reinforced

POLYPLASTICS CO., LTD.

物性中心 www.ponci.com.cn/wxb/ +13538586433 +18816996168

General Properties of 6565A7

table1-1 General Properties（ISO）

Item	Unit	Test Method	GF and Mineral reinforced 6565A7 Moldable at low mold temperature, Adhesion-enhanced
Color			HD9050
ISO(JIS)quality-of-the-material display:		ISO11469 (JIS K6999)	>PPS-(GF+MD)60<
Density	g/cm^3	ISO 1183	1.89
Water absorption (23°C,24hrs,1mmt)	%	ISO 62	0.02
Melt viscosity (310℃,1000/sec)	Pa·s	ISO 11443	200
Tensile strength	MPa	ISO 527-1,2	130
Strain at break	%	ISO 527-1,2	1.1
Flexural strength	MPa	ISO 178	180
Flexural modulus	MPa	ISO 178	17,800
Charpy notched impact strength (23℃)	kJ/m^2	ISO 179/1eA	5.0
Temperature of deflection under load (1.8MPa)	℃	ISO 75-1,2	275
Coefficient of linear thermal expansion (Normal temperature, Flow direction)	x10^{-5}/℃	Our standard	1
Coefficient of linear thermal expansion (Normal temperature, Transverse direction)	x10^{-5}/℃	Our standard	3
Electric strength (3mmt)	kV/mm	IEC 60243-1	16
Volume resistivity	Ω·cm	IEC 60093	7 × 10^{15}
Volume resistivity (Our standard)	Ω·cm		-
Relative permittivity (1kHz)		IEC 60250	4.9
Relative permittivity (1MHz)		IEC 60250	4.7
Dielectric dissipation factor (1kHz)		IEC 60250	0.014
Dielectric dissipation factor (1MHz)		IEC 60250	0.006
Relative permittivity (2GHz)		Cavity resonator method	-
Dielectric dissipation factor (2GH z)		Cavity resonator method	-
Tracking resistance (CTI)	V	IEC 60112	175
Arc resistance	s	ASTM D495	181
Rockwell hardness	M(Scale)	ISO2039-2	95
Flammability		UL94	V-0

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Item	Unit	Test Method	GF and Mineral reinforced
			6565A7
			Moldable at low mold temperature, Adhesion-enhanced
The yellow card File No.			E109088
Appropriate List number of Ministerial Ordinance for Export Trade Control			Item 16 of Appendix -1

All figures in the table are the typical values of the material and not the minimum values of the material specifications.

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1.Characterisics

6565A7 has better flowability and high strength compared with 6565A6.

2. Thermal Properties

2-1) Coefficient of Linear Thermal Expansion

(Table 2-1) Coefficient of Linear Thermal Expansion

Unit: $\times 10^{-5}$/℃

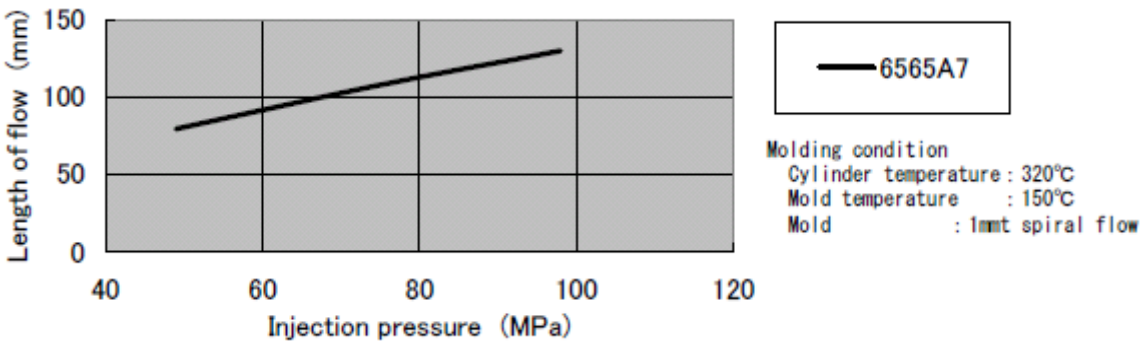
Grade		6565A7	
Direction		Flow direction	Transverse direction
Temperature (℃)	-30	1.2	2.5
	0	1.2	2.6
	50	1.2	2.8
	100	1.2	3.3
	150	1.3	4.4
	200	1.2	4.5

Standard temperature: 20℃

3. Molding Properties

3-1) Flowability

(Figure 3-1) Flowability (1mmt)



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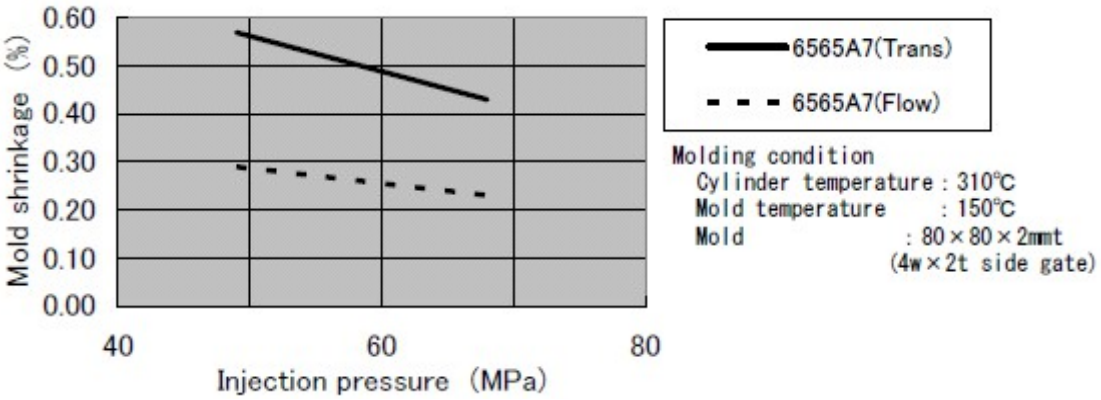
3-2) Mold Shrinkage

(Figure 3-2)　Mold Shrinkage

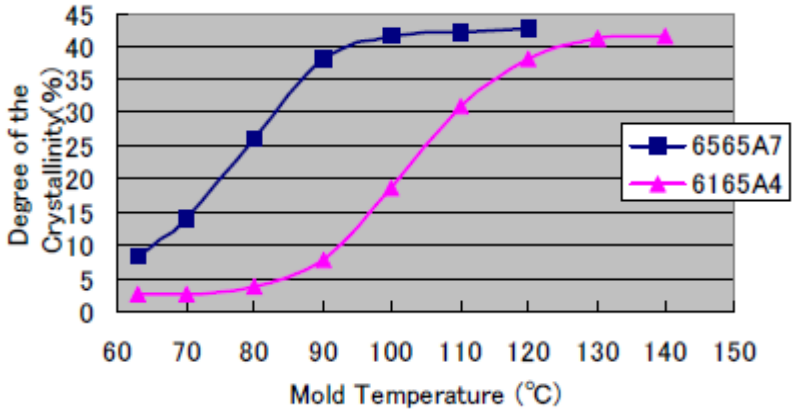


3-3) Mold Temperature

Because PPS is crystalline resin, it is necessary to crystallize sufficiently for excellent properties, so the crystalline resin is molded the mold temperature more than Tg. However the Tg of PPS is about 90℃, the mold temperature needs to mold PPS more than 130℃.

Figure 3-3 shows the relationship between the mold temperature and the degree of the crystallinity.

(Figure 3-3)　Mold Temperature vs. Degree of the Crystallinity



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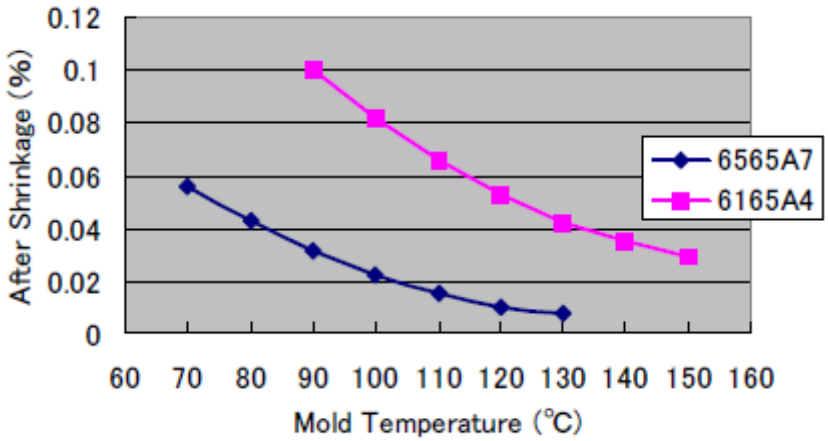
3-4) After Shrinkage

Figure 3-4 shows the relationship between the mold temperature and after shrinkage. The after shrinkage of **6565A7** at 100℃ is almost same as that of **6165A4** at 150℃, so the after shrinkage of **6565A7** is same as that of **6165A4**.

(Figure 3-4) Mold Temperature vs. After Shrinkage



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