Polyphenylene Sulfide (PPS)

DURAFIDE®

5120ML1

AW3081Z

(Special grade)

POLYPLASTICS CO., LTD.

General Properties of 5120ML1

table1-1 General Properties（ISO）

Item	Unit	Test Method	Special
			5120ML1
			Low Chlorine, Metal Adhesion,Low-dielectric constant
Color			AW3081Z
ISO(JIS)quality-of-the-material display:		ISO11469 (JIS K6999)	>PPS-I-GF20<
Density	g/cm^3	ISO 1183	1.4
Water absorption (23℃,24hrs)	%	ISO 62	-
Melt viscosity (310℃,1000/sec)	Pa·s	ISO 11443	220
Tensile strength	MPa	ISO 527-1,2	85
Strain at break	%	ISO 527-1,2	1.6
Flexural strength	MPa	ISO 178	120
Flexural modulus	MPa	ISO 178	5,500
Charpy impact strength (notched)	kJ/m^2	ISO 179/1eA	6
Temperature of deflection under load (1.8MPa)	℃	ISO 75-1,2	215
Coefficient of linear thermal expansion (Normal temperature, Flow direction)	$x10^{-5}$/℃		3
Coefficient of linear thermal expansion (Normal temperature, Transverse direction)	$x10^{-5}$/℃		7
Dielectric breakdown strength (3mmt)	kV/mm	IEC 60243-1	-
Volume resistivity	Ω·cm	IEC 60093	-
Volume resistivity (Our standard)	Ω·cm		-
Dielectric constant (1kHz)		IEC 60250	-
Dielectric constant (1MHz)		IEC 60250	-
Dielectric dissipation factor (1kHz)		IEC 60250	-
Dielectric dissipation factor (1MHz)		IEC 60250	-
Tracking resistance (CTI)	V	IEC 60112	-
Arc resistance	s		-
Dielectric constant (2GHz)		Cavity resonator method	3.3
Dielectric dissipation factor (2GH z)		Cavity resonator method	0.01
Rockwell hardness	M(Scale)	ISO2039-2	-
Flammability		UL94	HB
The yellow card File No.			E109088

Item	Unit	Test Method	Special
			5120ML1
			Low Chlorine, Metal Adhesion,Low-dielectric constant
Appropriate List number of Ministerial Ordinance for Export Trade Control			Item 16 of Appendix -1

※1) Nominal strain at break

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

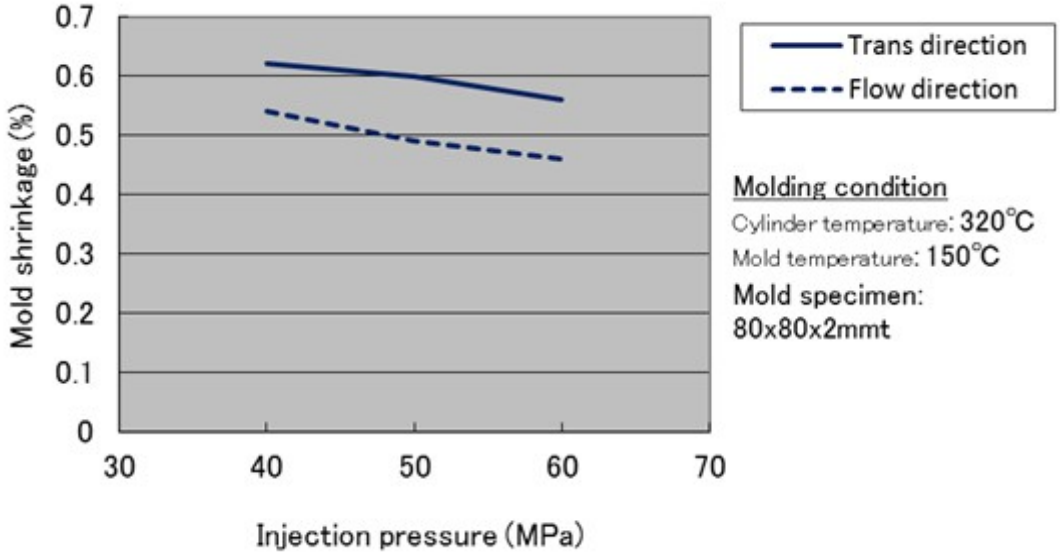
1. Chlorine content

Property	Unit	5120ML1
Chlorine content	ppm	≦ 900

*Cl content is measured by Polyplastics.
*Evaluation method: Combustion Ion Chromatography

2. Mold Shrinkage

(Figure 2-1) Mold Shrinkage (80□×2mmt)



3. Molding Condition

*Predrying Temperature : 120~140℃, 3hrs
*Cylinder Temperature : 300 ~ 320℃
*Injection Speed : Low ~ Mid.
*Mold Temperature : 130 ~ 160℃
*Screw Speed : 40 ~ 100 rpm
*Back Pressure : 2 ~ 5 Mpa

>Lower temperatures in the above condition (Predrying / Cylinder temp.) are recommended to reduce color change.
>Excessive dry time causes discoloration. The usage is recommended in proper predrying time.

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NOTES TO USERS

- All property values shown in this brochure are the typical values obtained under varying conditions prescribed by applicable standards and test methods.
- This brochure has been prepared based on our own experiences and laboratory test data, and therefore all data shown here are not always applicable to parts used under different conditions. We do not guarantee that these data are directly applicable to the application conditions of users and we ask each user to make his own decision on the application.
- It is the users' responsibility to investigate patent rights, service life and potentiality of applications introduced in this brochure. Materials we supply are not intended for the implant applications in the medical and dental fields, and therefore are not recommended for such uses.
- For all works done properly, it is advised to refer to the appropriate "**Technical Catalog**" for specific material processing.
- For safe handling of materials we supply, it is advised to refer to the Safety Data Sheet "**SDS**" of the proper material.
- This brochure is edited based on reference literatures, information and data currently available to us. So the contents of this brochure are subject to change without notice due to new data.
- Please contact our office for any questions about products we supply, descriptive literatures or any description in this brochure.

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