

Polybutylene Terephthalate (PBT)

DURANEX®

304SA

ED3002/EF2001

Low warpage, SA series

POLYPLASTICS CO., LTD.

General Properties of 304SA

table1-1 General Properties (ISO)

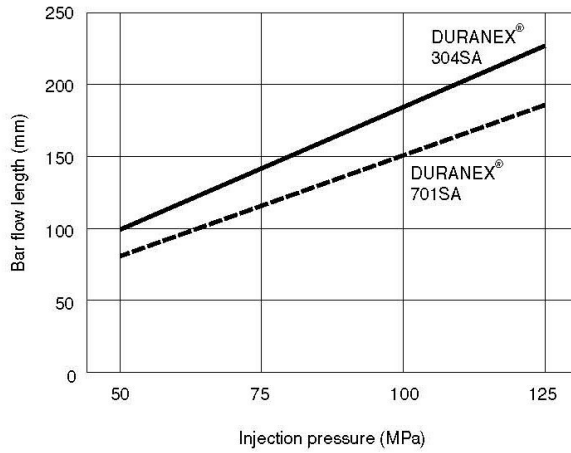
Item	Unit	Test Method	Low warpage,SA series
			304SA
			GF reinforced, low gravity,low wear
Color			ED3002/EF2001
ISO(JIS)quality-of-the-material display:		ISO11469 (JIS K6999)	>PBT+ABS-GF15<
Density	g/cm³	ISO 1183	1.28
Water absorption (23°C,24hrs,1mmt)	%	ISO 62	0.2
Tensile strength	MPa	ISO 527-1,2	96
Strain at break	%	ISO 527-1,2	2.3
Flexural strength	MPa	ISO 178	139
Flexural modulus	MPa	ISO 178	5,310
Charpy notched impact strength (23°C)	kJ/m²	ISO 179/1eA	6.0
Temperature of deflection under load (1.8MPa)	°C	ISO 75-1,2	120
Coefficient of linear thermal expansion (23 - 55°C、Flow direction)	x10 ⁻⁵ /°C	Our standard	4
Coefficient of linear thermal expansion (23 - 55°C、Transverse direction)	x10 ⁻⁵ /°C	Our standard	8
Electric strength (3mmt)	kV/mm	IEC 60243-1	24
Volume resistivity	Ω・cm	IEC 60093	4 × 10 ¹⁶
Tracking resistance (CTI)	V	IEC 60112	-
Rockwell hardness	M(Scale)	ISO2039-2	80
Flammability		UL94	HB
The yellow card File No.			E213445
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.



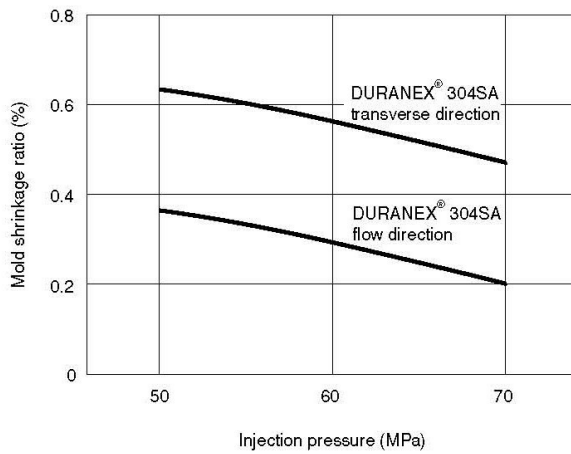
2. Processing characteristics of DURANEX® 304SA

Figure 1 Bar flow length of DURANEX® 304SA (1 mm $\bar{t}$)



Processing parameters
Cylinder temperature: 250-250-230-210°C
Mold temperature: 65°C
Injection speed: 67 mm/sec
Mold: 1 mm $\bar{t}$ bar flow length test mold

Figure 2 Mold shrinkage ratio of DURANEX® 304SA (120 $\bar{W}$ ×2 mm $\bar{t}$)



Processing parameters
Cylinder temperature: 250-250-230-210°C
Mold temperature: 65°C
Injection speed: 17 mm/sec
Mold: 120×120×2 mm $\bar{t}$ flat plate
Gate size: 4 (W)×2 $\bar{t}$



Important points when processing

DURANEX[®] PBT SA series

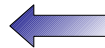
As the Duranex[®] PBT SA series employs special alloying technology, the pellet drying parameters differ from those of standard Duranex grades.

Please aim to adhere to a maximum drying temperature of 120°C.

Pellet drying parameters

Duranex[®] PBT SA series

Drying temperature	Drying time
105°C	over 8hrs
120°C	5-6 hrs



Standard Duranex[®] PBT

Drying temperature	Drying time
105°C	over 8hrs
120°C	5-6 hrs
140°C	3 hrs

If Duranex SA series pellets are dried at 140°C, there are cases in which the pellets agglomerate. Therefore, we advise adherence to the above conditions.



NOTES TO USERS

- All property values shown in this brochure are the typical values obtained under 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 appropriate technical catalogs 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 literature, information and data available to us at the time of creation. The contents of this brochure are subject to change without notice upon achievement of new data.
- Please contact our office for any questions about products we supply, descriptive literatures or any description in this brochure.

DURANEX® is a registered trademark of Polyplastics Co., Ltd. in Japan and other countries.

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