TEIJIN
Human Chemistry, Human Solutions

Pharmaceutical Container

●TN-8065S

Introduction

Teijin has developed a number of resin businesses centered on the polycarbonate resin Panlite®, first commercialized by Teijin in Japan in 1960. Teijin has been researching and developing in the medical field for over 30 years. Based on the Company's pioneering spirit of making the impossible possible, Teijin provides solutions that support advanced medical care to meet the needs of its customers.

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SUSTAINABLE DEVELOPMENT GOALS
3 GOOD HEALTH AND WELL-BEING

PEN Transparent Grade

Polyethylene naphthalate (PEN) resin is a material with excellent chemical resistance, gas-barrier properties, and low adsorption.

	Transparency	Heat-resistant	Chemical resistance	Gas-barrier properties	Low adsorption
PEN	○	○	◎	◎	◎
PC	○	○	△	△	△
PET	○	△	△	○	△
COC※	◎	○	△	△	△
PEI※	△	◎	○	△	△

* COC: Cyclic olefin copolymer PEI: Polyetherimide

PEN Grade - Physical Properties

Property	Unit	Standard	Measurement conditions	PEN Resin	COC	PEI
				General grade TN-8065S		
Density	kg/m^3	ISO1183	—	**1,330**	1,000	1,270
MVR	$cm^3/10min.$	ISO1133	300℃、2.16kgf	**5**	—	—
Tensile strength	MPa	ISO527-1	50mm/min.	**80**	60	105
Tensile yield distortion	%	ISO527-2		**50**	3	60
Flexural strength	MPa	ISO178	2mm/min.	**98**	99	160
Flexural modulus	MPa			**2,200**	2,480	3,300
Charpy impact strength	kJ/m^2	ISO179	Notched	**3**	3	—
	kJ/m^2		Unnotched	**NB**	39	—
Heat deflection temperature	℃	ISO75-1	1.8MPa	**92**	139	190
		ISO75-2	0.45MPa	**107**	152	200
Moisture vapor transmission rate	$g \cdot mm/(m^2 \cdot 24hr)$	JIS	40℃、90%RH	**0.3**	0.1	—
Oxygen transmission rate	$cm^3 \cdot mm/(m^2 \cdot day.MPa)$	K7126-1	23℃、50%RH	**12**	200	2,000
Dimensional change rate	%	In house method	132℃、0.4hr	**5**	0	0

*The values listed are typical values, guaranteed values.