

Product Description

Teonex® is biaxially oriented polyethylene naphthalate (PEN) films.

Teonex® is slightly hazy film with excellent handling properties for general purpose and high dimensional stability.

Q5100	Balanced Standard type
Q5300	Low shrinkage type (In-line annealed PEN)
Q8100	Lower shrinkage type (Off-line annealed Q5100)
Q8300	Super Low shrinkage type (Off-line annealed Q5300)

TYPICAL PROPERTY VALUES

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Property	Values																		SI Units	Test
Type	Q5100											Q5300			Q8100		Q8300			
Thickness		12	16	25	38	50	75	100	125	188	250	25	50	75	75	100	25	50	75	μm
Mechanical																				
Tensile Strength to break	MD	300	330	340	320	290	290	260	260	250	210	230	240	230	290	260	230	240	230	MPa
	TD	330	340	350	320	300	280	280	260	240	190	270	280	270	280	280	270	280	270	MPa
Elongation to Break	MD	100	90	100	110	120	100	110	100	110	120	140	160	150	100	110	140	160	150	%
	TD	90	80	90	110	120	100	100	100	100	110	130	130	120	100	100	130	130	120	%
Thermal																				
Melting Point		269																	degree C	DSC
Tg (FILM)		155																	degree C	DSC
Heat Shrinkage (150 degree C, 30min)	MD	0.7	1.0	1.0	0.5	0.4	0.5	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.0	0.1	0.1	0.0	%
	TD	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	%
Heat Shrinkage (200 degree C, 10min)	MD	2.6	2.7	2.7	1.2	0.8	1.0	0.9	1.0	1.1	0.9	0.7	0.7	0.6	0.4	0.1	0.3	0.3	0.2	%
	TD	3.5	1.7	1.9	1.3	0.8	1.0	1.1	0.8	0.7	0.7	0.1	0.1	0.4	0.2	0.0	-0.1	-0.1	-0.1	%
Electrical																				
Break down voltage	Average	9.6	9.6	8.1	11.2	12.7	16.2	18.0	20.7	25.0	28.7	8.1	12.7	16.2	16.2	18.0	8.1	12.7	16.2	kV

MD: Machine Direction

TD: Transverse Direction

These values represent typical performance data for Teonex® PEN film and are not intended for use as design data or specification data. We believe this information to be the best currently available on the subject. It is provided as a possible helpful reference for experimentation that you may choose to undertake. This information is subject to revision as additional knowledge and experience are obtained. We make no guarantee of results and assume no obligation or liability whatsoever in connection with this information.

CAUTION:

Do not use Teonex® PEN film in medical applications involving permanent implantation in the human body.

Teonex® is a registered trademark of TOYOBO CO., LTD. for polyethylene naphthalate (PEN) films.

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