

## DuPont Teijin Films Teonex® Q83 Polyester Film, 200 Gauge

Category : Polymer , Film , Thermoplastic , Polyester, TP , Polyester Film

### Material Notes:

Teonex® Q83 is biaxially oriented, slightly hazy polyethylene naphthalate (PEN) film with excellent handling properties and high dimensional stability. It is commercially available in 100, 200 and 300 gauge (25, 50, 75 micron). Approvals: UL 94 VTM-2 - for 100 through 300 gauge (0.025 - 0.075 mm) and UL Component Registration (RTI = 180/160°C) - Relative Thermal Index (RTI) = 180°C (Elect), 160°C (Mech) Also available in 100 and 300 Gauge Information provided by DuPont.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Teijin-Films-Teonex-Q83-Polyester-Film-200-Gauge.php](http://www.lookpolymers.com/polymer_DuPont-Teijin-Films-Teonex-Q83-Polyester-Film-200-Gauge.php)

Physical Properties	Metric	English	Comments
Density	1.36 g/cc	0.0491 lb/in <sup>3</sup>	JIS C-2151

Mechanical Properties	Metric	English	Comments
Film Elongation at Break, MD	118 %	118 %	JIS C-2318 (Modified to TDF)
Film Elongation at Break, TD	115 %	115 %	JIS C-2318 (Modified to TDF)
Secant Modulus, MD	6.35 GPa	921 ksi	ASTM D822 (Modified to TDF)
Secant Modulus, TD	7.019 GPa	1018 ksi	ASTM D822 (Modified to TDF)
Coefficient of Friction, Dynamic	0.30	0.30	ASTM D1894
Coefficient of Friction, Static	0.30	0.30	ASTM D1894
Film Tensile Strength at Break, MD	207 MPa	30000 psi	JIS C-2318 (Modified to TDF)
Film Tensile Strength at Break, TD	234 MPa	34000 psi	JIS C-2318 (Modified to TDF)

Thermal Properties	Metric	English	Comments
Melting Point	269 °C	516 °F	DSC
Glass Transition Temp, Tg	121 °C	250 °F	DSC
UL RTI, Electrical	160 °C	320 °F	
UL RTI, Mechanical without Impact	180 °C	356 °F	
Shrinkage, MD	0.090 %	0.090 %	JIS C-2318 (Modified to TDF)
	@Temperature 150 °C	@Temperature 302 °F	
Shrinkage, TD	0.30 %	0.30 %	Unrestrained
	@Temperature 200 °C, Time 600 sec	@Temperature 392 °F, Time 0.167 hour	

Thermal Properties	Metric	English	Comments
Shrinkage, TD	@Temperature 150 °C	@Temperature 302 °F	JIS C-2318 (Modified to TDF)
	0.050 %	0.050 %	Unrestrained
	@Temperature 200 °C, Time 600 sec	@Temperature 392 °F, Time 0.167 hour	

Optical Properties	Metric	English	Comments
Haze	12 %	12 %	JIS K6714
Transmission, Visible	84 %	84 %	JIS K6714
UV Transmittance	11 %	11 %	TDF Method
	@Wavelength 360 nm	@Wavelength 360 nm	

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.90e+17 ohm-cm	2.90e+17 ohm-cm	JIS C-2318
Dielectric Constant	2.8	2.8	JIS C-2318
	@Frequency 100000 Hz	@Frequency 100000 Hz	
	2.9	2.9	JIS C-2318
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	

Descriptive Properties	Value	Comments
F5	21 kpsi	TD, TDF Method
	21 kpsi	MD, TDF Method
Surface Roughness	13 nm	TDF Method (Inside)
Tear Propagation	2.0 lb	MD, TDF Method
	2.0 lb	TD, TDF Method

## Contact Songhan Plastic Technology Co.,Ltd.

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