

## DuPont™ Tedlar® TWH20BS3 Satin White Polyvinyl Fluoride Film

Category : Polymer , Film , Thermoplastic , Fluoropolymer

### Material Notes:

Properties of DuPont™ Tedlar® polyvinyl fluoride (PVF) biaxially oriented film include excellent resistance to weathering, outstanding mechanical properties, and inertness towards a wide variety of chemicals, solvents, and staining agents. Information provided by DuPont.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Tedlar-TWH20BS3-Satin-White-Polyvinyl-Fluoride-Film.php](http://www.lookpolymers.com/polymer_DuPont-Tedlar-TWH20BS3-Satin-White-Polyvinyl-Fluoride-Film.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.71 g/cc	1.71 g/cc	ASTM D1505
Moisture Absorption at Equilibrium	<= 0.50 %	<= 0.50 %	ASTM D570
Moisture Vapor Transmission	0.860 cc-mm/m <sup>2</sup> -24hr-atm	2.18 cc-mil/100 in <sup>2</sup> -24hr-atm	ASTM E96
Thickness	50.8 microns	2.00 mil	

Mechanical Properties	Metric	English	Comments
Film Elongation at Break, MD	>= 110 %	>= 110 %	ASTM D882
Secant Modulus, MD	2.65 GPa	385 ksi	ASTM D822
Impact	71.6	71.6	kJ/m; Spencer; ASTM D3420
Coefficient of Friction	0.18	0.18	Film: Metal; ASTM D1894
Tear Strength	146 kN/m	833 pli	Graves (initial), TD; ASTM D1004
	195 kN/m	1110 pli	Graves (initial), MD; ASTM D1004
Elmendorf Tear Strength, MD	1.82 g/micron	46.2 g/mil	ASTM D1922
Elmendorf Tear Strength, TD	1.05 g/micron	26.6 g/mil	ASTM D1922
Film Tensile Strength at Break, MD	>= 62.1 MPa	>= 9000 psi	ASTM D882

Thermal Properties	Metric	English	Comments
CTE, linear	83.0 µm/m-°C	46.1 µin/in-°F	TD; ASTM D696
	@Temperature 50.0 - 70.0 °C	@Temperature 122 - 158 °F	
	97.0 µm/m-°C	53.9 µin/in-°F	MD; ASTM D696
	@Temperature 50.0 - 70.0 °C	@Temperature 122 - 158 °F	

Specific Heat Capacity Thermal Properties	1.05 J/g·°C Metric	0.251 BTU/lb·°F English	DuPont 990 test Comments
Maximum Service Temperature, Air	107 °C	225 °F	Continuous
	175 °C	347 °F	Short Cycle
Minimum Service Temperature, Air	-72.0 °C	-97.6 °F	Continuous
Shrinkage	<= 5.0 % @Temperature 170 °C	<= 5.0 % @Temperature 338 °F	TD; ASTM D1204

Optical Properties	Metric	English	Comments
Refractive Index	1.46 @Temperature 30.0 °C	1.46 @Temperature 86.0 °F	n<sub>D</sub>; Abbe Refractometer; ASTM D-542

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.50e+11 ohm-cm @Temperature 100 °C	1.50e+11 ohm-cm @Temperature 212 °F	ASTM D257
	7.00e+14 ohm-cm @Temperature 22.0 °C	7.00e+14 ohm-cm @Temperature 71.6 °F	ASTM D257
Dielectric Constant	11 @Frequency 1000 Hz	11 @Frequency 1000 Hz	ASTM D150
Dielectric Strength	138 kV/mm @Frequency 60.0 Hz	3500 kV/in @Frequency 60.0 Hz	ASTM D150
Dissipation Factor	0.014 @Frequency 1000 Hz, Temperature 22.0 °C	0.014 @Frequency 1000 Hz, Temperature 71.6 °F	ASTM D150
	0.016 @Frequency 10000 Hz, Temperature 70.0 °C	0.016 @Frequency 10000 Hz, Temperature 158 °F	ASTM D150
	0.017 @Frequency 1000 Hz, Temperature 70.0 °C	0.017 @Frequency 1000 Hz, Temperature 158 °F	ASTM D150
	0.034 @Frequency 10000 Hz, Temperature 22.0 °C	0.034 @Frequency 10000 Hz, Temperature 71.6 °F	ASTM D150

Descriptive Properties	Value	Comments
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Aging in Air  
Descriptive Properties

> 3000 hours to embrittlement  
Value

300°F Oven  
Comments

## Contact Songhan Plastic Technology Co.,Ltd.

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