

# UNSINTERED PTFE TAPES

## HIGH PERFORMANCE – MAX (EM) Series



Technetics' MAX Series of unsintered PTFE tapes (a.k.a. "Extruded Tapes") provide superior electrical properties in addition to excellent chemical and mechanical properties of the standard version. High Performance tapes are recommended in critical wire and cable applications, especially those requiring arc propagation resistance (arc tracking).

The MAX Series is also the best option for convoluted hoses and control cables (push/pull cables) where flexural strength is required.

### APPLICATIONS:

- **Control cables (push-pull cables)**
- **Convoluted hoses**
- **Thermocouple wire**
- **Commercial and military aircraft wiring**

### FEATURES

- High performance insulation and jacketing materials
- Natural, Standard (White, Red, Blue, Yellow, Green, Black) and Special colors (Brown, Orange, Violet, Gray); custom color shades can be developed upon request.
- Natural and White colors can be as thin as 0.0015" (0.038mm). Other colors start at 0.0020" (0.051mm)
- Widths from 5/32 (4mm) to 7" (178mm)
  - Check our [Widths and Packages flyer](#) for details on winding types
- Homopolymer or copolymer materials
- High tensile strength in addition to long continuous lengths help wire and cable producers to improve efficiency by enabling faster wrapping speeds while minimizing changeovers
- Physical and mechanical properties meet ASTM D6585 and AS22759
- High temperature of operation
- Continuous long lengths from 3,000ft (914m) up to 13,500ft (4115m)
- Excellent chemical resistance, mechanical and chemical performance
- All colors are RoHS, REACH and California Prop 65 compliant

### TYPICAL PROPERTIES

Unsintered PTFE Tapes - High Performance					
Thickness	0.0020" (0.051mm)	0.0025" (0.064mm)	0.0030" (0.076mm)	0.0035" (0.089mm)	0.0040" (0.102mm)
Density (SPG)	1.6 g/cm <sup>3</sup>				
Tensile Strength <sup>1</sup> (Machine Direction)	3,400 psi (23.4 MPa)	3,200 psi (22.1 MPa)	3,000 psi (20.7 MPa)	2,400 psi (16.5 MPa)	2,400 psi (16.5 MPa)
Elongation at Break <sup>1</sup> (Machine Direction)	150%	150%	200%	230%	250%
Dielectric Strength (breakdown voltage)	2,000 V/mil (78.7 kV/mm)				











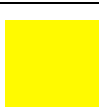




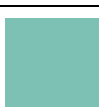












The values above are for reference only and should not be used as specification

<sup>1</sup> Different colors and base resins may lead to different values

## COMMON AEROSPACE WIRE AND CABLE CONSTRUCTIONS

- Single Conductor wires: AS22759/80 – /96, EN2267-007, -009, -011
- Hook-up of electronic assemblies: NEMA WC 55021, NEMA HP3
- Airframe, single or multiple cores: BMS 13, ABS 0949, ABS 1356
- Flight test, thermocouple cable: ASN E0413, MBBN 3320, EN4049-004
- Special cables: NSA 935306
- Power Feeders: ASN E0438, NSA 935131, ABS 0949
- Data cables: BMS 13-80, AS6070

## COLORS

		DARKEST	LIGHTEST	ACTUAL	TAPE COLOR BEFORE SINTERING
<b>Standard Colors</b> Darkest and Lightest shades according MIL-STD-104 (Class 1) and EIA-359-A.	<b>BLACK</b>	N/A	 --- 2.3/0.5	 ECLIPSE BLACK	
	<b>RED</b>	 10RP 3/10	 5.5R 5/27	 VALENCIA RED	
	<b>BLUE</b>	 7.5B 3/8	 5PB 5.2/25	 MARINER BLUE	
	<b>YELLOW</b>	 1.25Y 7.5/8	 8.75Y 9.5/21	 STARSHIP YELLOW	
	<b>GREEN</b>	 5GY 4/8	 5G 6/31	 EUCALYPTUS GREEN	
<b>Special Colors</b> Darkest and Lightest shades according MIL-STD-104 (Class 1) and EIA-359-A.	<b>ORANGE</b>	 10R 5/10	 5YR 5/21	 SIENNA ORANGE	
	<b>BROWN</b>	 7.5R 2.5/4.5	 7.5YR 4.5/8	 IRONSTONE BROWN	
	<b>VIOLET</b>	 10PB 3/5.5	 5P 5.5/31	 STUDIO VIOLET	
	<b>GRAY</b>	 --- 4.5/0	 --- 6/0.5	 ALUMINUM GRAY	

Warning: Properties shown on this document are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations, consult Technetics PTFE & Polymer Solutions. While the utmost care has been used in compiling this document, we assume no responsibility for errors. This edition cancels all previous issues. Subject to change without notice.