



# Raychem INSTALITE Lightweight Braid

Up to 50% Lighter Than Traditional Copper Braid—With Excellent EMI Performance and Lightning Protection

## LIGHTWEIGHT

- Up to 50% lighter than traditional braid
- Low risk alternative

## VERSATILE

- Covers wide frequency range
- Better low-frequency performance than plated fibers or microfilaments
- Lightning protection
- Available in diameters from 3 to 20 mm

## EASE OF USE

- Uses existing termination tooling and processes
- Easy transition from standard industry braids

## APPLICATIONS

- Military Harnesses
- Commercial Aerospace
- Unmanned Vehicles
- Space

Offering up to 50% weight savings over traditional copper braids, INSTALITE lightweight braid has excellent electrical shielding performance over a wide frequency range. Made from a high-performance nickel-plated copper alloy, the RoHS-compliant pull-on braid is supplied on a former for easy installation onto various substrates.

INSTALITE braid is more flexible than standard industry metal braids, making it very user friendly to work with.

Since INSTALITE braid uses well-established metal braiding, the transition to INSTALITE braid is easy. The product can be terminated by standard tooling and installation procedures for existing backshells and band straps, making it easy to introduce it into current applications.

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# Raychem INSTALITE Lightweight Braid

## EMI and Lightning Protection That Is Up to 50% Lighter



### ORDERING INFORMATION

Diameter, mm (Inch)	Part Number	
	Tin Plated	Nickel Plated
3 (0.12)	LWB-101-3.0	LWB-103-3.0
6 (0.24)	LWB-101-6.0	LWB-103-6.0
10 (0.40)	LWB-101-10.0	LWB-103-10.0
20 (0.79)	LWB-101-20.0	LWB-103-20.0

### Performance Characteristics

#### MATERIALS

- **Braid:** Copper alloy, tin or nickel plated
- **Former:** Plastic

#### SPECIFICATIONS

- **Lightning Test:** Waveform 5B, 21 kA

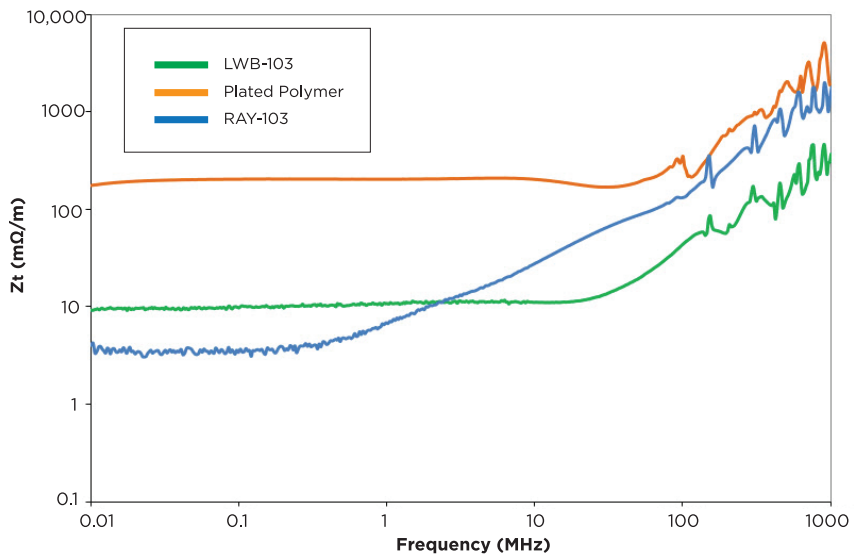
#### ENVIRONMENTAL

- **Temperature Range:**  
Tin Plated (LWB-101-xx): -65°C to +150°C  
Nickel Plated: (LWB-103-xx): -65°C to +200°C
- **Salt Spray:** ASTM B117
- **Flex Endurance:** 1000 cycles min.,  
SAE AS4373 method 704 (180-degree bend)
- **RoHS Compliant**
- **Product Specification:** WSD2516
- **Packaging:** 10, 50 and 100-meter spools

### INSTALITE LIGHTWEIGHT BRAID COMPARISON

#### INSTALITE Lightweight Braid versus Standard Braid (10 mm Braid)

(Nominal Values)	INSTALITE LWB	Standard Braid
<b>DC Resistance (mΩ/m)</b>	9	3.5
<b>Strand Tensile Strength (N/mm<sup>2</sup>)</b>	758	220
<b>Strand Break Strength (N)</b>	15.2	11.14
<b>Weight (kg/km)</b>	28	60



Braids are 10-mm OD  
 RAY-103 = Traditional braid (control)  
 LWB-103 lightweight braid = 50% weight savings  
 Plated fibers = 80% weight savings; 100x worse surface transfer impedance up to 10 MHz

[te.com/lightweightbraid](http://te.com/lightweightbraid)

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Consult TE for the latest dimensions and design specifications.

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