

**STATE OF NEW JERSEY  
DEPARTMENT OF TRANSPORTATION  
TRENTON, NEW JERSEY 08625**

**METRIC SPECIFICATIONS FOR TRAFFIC SIGNAL CABLE**

N.J. Specification No. EBM-TS-CABLE

Effective Date: July 1, 2001

New Jersey Department of Transportation Specifications for Traffic Signal Cable.

The purpose of these specifications is to describe minimum acceptable design requirements for multiconductor traffic signal cable.

**TYPE A**

Traffic signal cable shall consist of THHN/THWN conductors twisted and covered with a polyvinyl chloride outer jacket. The traffic signal cable shall conform to UL subject 1277. The cable shall be rated for 600 volts.

The conductor shall be bare soft annealed copper wire, seven wire (Class B) stranding conforming to ASTM B 3 and B 8.

The insulation shall be high dielectric polyvinyl chloride covered with an insulation armor of nylon conforming to UL 83 for type THHN/THWN insulation. The insulated conductors shall be twisted and covered with a helically applied suitable binding tape.

Circuit Identification: Insulation is colored and ink printed with conductor number and colors per ICEA S-66-524, Appendix K-Table K-1 Method 3.

<b><u>COND. No.</u></b>	<b><u>BASE COLOR</u></b>	<b><u>PRINTING</u></b>
1.	Black	1-Black
2.	White	2-White
3.	Red	3-Red
4.	Green	4-Green
5.	Orange	5-Orange
6.	Blue	6-Blue
7.	White	7-White-Black
8.	Red	8-Red-Black
9.	Green	9-Green-Black
10.	Orange	10-Orange-Black
11.	Blue	11-Blue-Black

Surface Printing: Ink Printed, "14 AWG No. Conductors - THHN/THWN - NJDOT  
Approval number - Company name and number.

**TYPE B**

Traffic signal cable shall consist of XHHW conductors, twisted and covered with a polyvinyl chloride outer jacket. The traffic signal cable shall conform to UL Subject 1277. The cable shall be rated for 600 volts.

The conductor shall be bare soft annealed copper wire (Class B) stranding conforming to ASTM B 3 and B 8.

The insulation shall be cross-linked polyethylene conforming to UL Subject 44 for Type XHHW insulation. The insulated conductors assembly shall be twisted and covered with a helically applied suitable binding tape.

Circuit Identification: Insulation is colored and ink printed with conductor number and colors per ICEA S-66-524, Appendix K-Table K-1 Method 3.

<b><u>COND. No.</u></b>	<b><u>BASE COLOR</u></b>	<b><u>PRINTING</u></b>
1.	Black	1-Black
2.	White	2-White
3.	Red	3-Red
4.	Green	4-Green
5.	Orange	5-Orange
6.	Blue	6-Blue
7.	White	7-White-Black
8.	Red	8-Red-Black
9.	Green	9-Green-Black
10.	Orange	10-Orange-Black
11.	Blue	11-Blue-Black

Surface Printing: Ink Printed, "14 AWG No. Conductors - XHHW - NJDOT Approval number - Company name and number.

**STATE BID PURCHASED MATERIAL**

The following applies only to material procured through bid for direct State purchase:

1. Cable must be supplied on a wooden reel.