



CABLE, LOW TENSION, POLYURETHANE INSULATED, 80 °C, HEAVY WALL, COILED AND FLEXIBLE

WSB-M1L132-A1

1. SCOPE

The material defined by this specification is a low tension stranded, heavy wall, polyurethane insulated cable. It is a coiled flexible cable capable of withstanding 80 °C.

2. APPLICATION

This specification was released originally for a cable used to supply electrical power to accessories mounted on the lift gate (such as the rear window wiper motor).

Note: The assemblers of electrical wire harnesses shall use the bulk wire suppliers as shown in the Ford Motor Company Approved Source List.

3. REQUIREMENTS

3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.4 CONSTRUCTION

3.4.1 Conductor (See Table 1)

Conductor Diameter: The diameter of individual strands and finished conductor may be measured using a machinist micrometer, laser micrometer or other suitable measuring instruments readable to at least 0.01 mm.

Circular Mil Area: Take a section of uninsulated conductor and measure the individual strand diameters using a machinist micrometer, laser micrometer or other suitable measuring instruments readable to at least 0.01 mm. Calculate the average strand diameter, then determine the cross sectional circular mil area by squaring the diameter of strands in mils and then multiplying by the number of strands.

Conductor Stranding: Unless otherwise specified, the individual strands of the conductor shall be soft or annealed copper conforming to ASTM B 3. The conductor shall be rope lay stranded copper having bunched members employing 36 AWG single end wire similar to arrangements found in ASTM B 172. The maximum lay lengths shall be as specified in ASTM B 172. (Note: ASTM B 172 does not define a class for the 36 AWG single end rope lay stranded wire as called out in this specification).

Date	Action	Revisions
2003 06 23	Revised	Para 3.0 inserted; Para 3.1, 3.2, 3.3, 3.11, 3.12, 4 deleted
1994 02 25	NB00I10043054315	Released

Printed copies are uncontrolled

Copyright © 2003, Ford Global Technologies, Inc.

Documents
Document Sharing Hub



3.4.2 Insulation Wall Thickness (See Table 1)

Strip approximately 2.5 cm of insulation from the finished wire and make a 90 degree crosscut using a sharp razor blade. Using a Federal pin Gage, Shadow graph or equivalent optical measuring device, locate and measure the minimum and maximum insulation wall thickness. The average of the minimum and maximum readings shall meet the values specified in Table 1.

Note: Individual readings must not be less than the values specified in Table 1.

3.4.3 Cable Diameter (See Table 1)

Take a suitable length of wire and measure the diameter of the cable using a machinist micrometer, laser micrometer or equivalent. Check the diameter in four places rotating the wire 90 deg and record the average value of the four readings.

3.5 JOINTS

Bunched strands at the joint must meet 80.0% of its original tensile strength.

Note: Tensile strength and machine capability defined by SPC standard recommendation must be established prior to making joints for production.

Take a 300 mm sample of bunched conductor and place it in the jaws of a tensile pulling machine or equivalent. Set the jaw separation at 250 mm. Pull the tensile sample at a rate of 50 mm per minute. Record the maximum value obtained. Next, repeat the test using a tensile sample containing a joint.

Note: When checking the tensile strength of the joint, the joint must be centered between the jaws of the tensile machine.

3.6 COLOR TOLERANCE (See Table 2)

The Munsell Color Tolerance set has the desired color in the center, surrounded by colors that deviate from it by small amounts in various directions in color space.

Ideally, the base, secondary or printing color being inspected should match the central color. It must not deviate from the central color be more than the specified color limits. Comparison must be made by a person with normal or corrected vision, under a Pantone Viewing light or equivalent using daylight conditions. The surface being inspected and the tolerance set must be in the same plane.

Cable samples must be placed flat, overlapping the color standard. Either of the illuminating and viewing arrangements shown below are acceptable.

