



CABLE CONDUIT, NONMETALLIC

ESB-M3L38-A

1. SCOPE

The material defined by this specification is a flexible nonmetallic conduit, composed of cotton warp yarns or (alternately) glass reinforced nylon thread similar to ESB-M4D89 and kraft paper fillers woven in a tubular form, impregnated with a satisfactory asphaltic solution, coated with a black wax and paraffin solution.

2. APPLICATION

This specification was released originally for material used as wiring assemblies in all car lines.

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).

3.1 DIMENSION OF NONMETALLIC CONDUIT

Nominal Size, in	Inside Diameter, in (mm)		Outside Diameter, in (mm)	
	Minimum	Maximum	Minimum	Maximum
1/8	0.125 (3.18)	0.145 (3.68)	0.210 (5.33)	0.235 (5.97)
5/32	0.156 (3.96)	0.176 (4.47)	0.245 (6.22)	0.265 (6.73)
3/16	0.187 (4.75)	0.207 (5.26)	0.287 (7.29)	0.307 (7.80)
7/32	0.218 (5.54)	0.238 (6.05)	0.313 (7.95)	0.343 (8.71)
1/4	0.250 (6.35)	0.270 (6.86)	0.350 (8.89)	0.370 (9.40)
9/32	0.281 (7.14)	0.301 (7.65)	0.386 (9.80)	0.406 (10.31)
5/16	0.312 (7.92)	0.332 (8.43)	0.412 (10.46)	0.432 (10.97)
11/32	0.345 (8.76)	0.375 (9.53)	0.470 (11.94)	0.500 (12.70)

Date	Action	Revisions
2005 02 14	Revised	Inserted 3.0; Deleted 3.5, 4
1978 11 14		Metricated, Renumbered and Retyped CAH1-RD572066-173
1963 07 25		Released AS1 #1002



Nominal Size, in	Inside Diameter, in (mm)		Outside Diameter, in (mm)	
	Minimum	Maximum	Minimum	Maximum
3/8	0.375 (9.53)	0.395 (10.03)	0.505 (12.83)	0.525 (13.34)
7/16	0.437 (11.10)	0.457 (11.61)	0.567 (14.40)	0.587 (14.91)
1/2	0.500 (12.70)	0.520 (13.21)	0.630 (16.00)	0.650 (16.51)
9/16	0.562 (14.27)	0.582 (14.78)	0.722 (18.34)	0.742 (18.85)
5/8	0.625 (15.88)	0.645 (16.38)	0.785 (19.94)	0.805 (20.45)
11/16	0.687 (17.45)	0.707 (17.96)	0.847 (21.51)	0.867 (22.02)
3/4	0.750 (19.05)	0.770 (19.56)	0.934 (23.72)	0.954 (24.23)
13/16	0.812 (20.62)	0.832 (21.13)	0.996 (25.30)	1.016 (25.81)
7/8	0.875 (22.23)	0.895 (22.73)	1.079 (27.41)	1.099 (27.91)
15/16	0.937 (23.80)	0.957 (24.31)	1.141 (28.98)	1.161 (29.49)
1	1.000 (25.40)	1.020 (25.91)	1.204 (30.58)	1.224 (31.09)

3.2 TREATMENT

The conduit shall be saturated inside and out with an asphaltic compound and shall be free from beads or seams or any obstruction which will interfere with the free passage of the wire. Treatment shall be completely dry. All shipments over 100 pieces should be shipped so that the pieces are placed and held in a vertical position during transit and storage, and must be sound when received. Light colored dusting powders are objectionable.

3.3 PERFORMANCE TESTS

3.3.1 Water Absorption Test

Weight Increase, max

35 %

Test Method: A 6.0 in (152 mm) piece of loom shall be totally immersed in water at 23 +/- 2 °C for 24 h, then blown out with a mild air current. Measure the weight increase immediately after removing the water.