
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
NASA-16122 (September 1999)
NASA - KSC
Superseding NASA-16122
(September 1994)

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SECTION 16122

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09/99

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SECTION 16122

MINERAL-INSULATED CABLE
09/99

NOTE: This section shall not be changed but used in
its entirety whenever mi cable is required on the
project. Notes are for designer information and
will not appear in the final project specification.

This KSC local specification covers mineral
insulated (MI) electrical cables.

PART 1 GENERAL

1.1 REFERENCES (Not Applicable)

1.2 SUBMITTALS

NOTE: Review submittal description (SD) definitions
in Section 01330, "Submittals," and edit the
following list to reflect only the submittals
required for the project. Submittals should be kept
to the minimum required for adequate quality
control. Include a columnar list of appropriate
products and tests beneath each submittal
description.

The following shall be submitted in accordance with Section 01330,
"Submittals," in sufficient detail to show full compliance with the
specification:

SD-03 Product Data

Manufacturer's catalog data shall be submitted for the following
items:

Mineral-Insulated (MI) Cable
Sealing Compound

SD-07 Certificates

Certificates shall be submitted for the following items showing
conformance with the referenced standards contained in this
section.

Mineral-Insulated (MI) Cable

Sealing Compound

1.3 GENERAL REQUIREMENTS

NOTE: If Section 16003, "General Electrical Provisions," is not included in the project specification, applicable requirements therefrom should be inserted and the following paragraph deleted.

Section 16003, "General Electrical Provisions," applies to work specified in this section.

All work in this section that is covered by Specification 79K06110 shall be in accordance with Specification 79K06110.

PART 2 PRODUCTS

2.1 MINERAL-INSULATED (MI) CABLE

MI cable shall consist of soft annealed, uncoated, copper conductors insulated with a highly compressed refractory mineral insulation.

2.2 SEALING COMPOUND

Sealing compound shall be in accordance with Specification 79K06110.

PART 3 EXECUTION

3.1 GENERAL

Length of cable needed for a particular run shall be measured and an allowance made for the length of conductor needed at each end to properly make the desired terminations. Cable shall be cut to the necessary length with a hacksaw. Cable cutters and other cutting tools that exert excessive pressure on the metallic sheath shall not be used. Immediately following cutting, both ends of the cable shall be sealed in accordance with Specification 79K06110 to prevent moisture penetration of the insulation. Cutting shall be done immediately preceding installation.

Cable shall be trained into place by hand wherever possible. On straight runs, it may be straightened into its final position by being tapped with a wooden mallet, block, or plank.

Sharp bends and kinks shall be avoided during preliminary handling and training.

Cable shall be supported at least every 6 feet 1800 millimeter during handling and training.

Bends shall be made by approved template or hand hickey. Minimum bending radius of the inside edge of any bend shall be five times the diameter of the cable.

A loop or an offset shall be formed in the cable within 4 feet 1200 millimeter of cable terminations in all runs exceeding 30 feet 9.1 meter. Loop or offset shall be of such a size as to provide a minimum of 12 inches

300 millimeter of excess cable to allow for retermination without replacing the cable run.

Termination shall be made in accordance with Specification 79K06110.

MI cables shall be supported as shown on the drawings. Intervals between supports shall not be more than 6 feet 1800 millimeter on both horizontal and vertical runs. MI cable installed in ducts, raceways, conduits, and cable trays shall be deemed adequately supported along horizontal runs. Cable shall be wrapped with an adhesive heat-resistant glass tape at each support point to minimize electrolysis between the cable sheath and the supports. Wrap shall be a minimum thickness of 14 mils 0.36 millimeter (two complete wraps of 7-mil 0.18 millimeter tape) and shall extend past the support device a minimum of 1/4 inch 6.4 millimeter on each side. As an alternative to the tape wrapping, MI cable with a plastic jacket may be used.

No splices shall be made in runs of MI cable unless Specifically shown on the drawings. If splices are so shown, they shall be made only in junction boxes.

3.2 TESTS

MI cables shall be tested in accordance with specification 79K06110.

-- End of Section --