

ANSI/ICEA T-26-465

NEMA WC 54

GUIDE FOR FREQUENCY OF
SAMPLING EXTRUDED
DIELECTRIC POWER,
CONTROL,
INSTRUMENTATION, AND
PORTABLE CABLES FOR TEST



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Approved as an American National Standard
ANSI Approval Date: March 20, 2002

Insulated Cable Engineers Assoc., Inc. Publication No. ICEA T-26-465
NEMA Standards Publication No. WC 54-2001

*Guide for Frequency of Sampling Extruded Dielectric Power, Control, Instrumentation,
and Portable Cables for Test*

Published by:

National Electrical Manufacturers Association
1300 North 17th Street, Suite 1847
Rosslyn, Virginia 22209

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CONTENTS

Page

Foreword	ii
Scope.....	ii
Section 1 GUIDE FOR SAMPLING FREQUENCIES.....	1
1.1 DEFINITIONS	1
1.2 SELECTION OF SAMPLES.....	1
1.2.1 Sample for Tests on Cable or Specimens from Cable	1
1.2.2 Samples for Tests on Conducting Materials Intended for Extrusion	1
1.2.3 Sample Plans for Other Tests	1
1.3 SAMPLE CONFORMANCE	1
1.4 RESAMPLING.....	1
Section 2 SAMPLING PLAN	3
Plan A	3
Plan B	3
Plan C	3
Plan D	3
Plan E	3
Plan F	4
Plan G	4
Plan H	4
Plan I	4
Plan J	4
Plan K	4
Section 3 SCHEDULE OF TESTS AND APPLICABLE SAMPLING PLANS	5

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Foreword

This Guide for Frequency of Sampling of Extruded Dielectric Power, Control, Instrumentation, and Portable Cables for Test was developed by the Insulated Cable Engineers Association, Inc. and was approved by the National Electrical Manufacturers Association.

ICEA/NEMA Standards are adopted in the public interest and are designed to eliminate misunderstandings between the manufacturers and the user and to assist the user in selecting and obtaining the proper product for his or her particular need. The user of this Standards Publication is cautioned to observe any health or safety regulations and rules relative to the use of the test procedures covered by this document.

Requests for interpretation of this Standard must be submitted in writing to the Insulated Cable Engineers Association, Inc., P.O. Box 1568, Carrollton, GA 30117. An official written interpretation will be provided by the Association.

Suggestions for improvement gained in the use of this publication will be welcomed by the Association.

Scope

This guide provides a combination of plans for the frequencies at which cable samples may be obtained for tests to determine conformance to the appropriate requirements of ICEA Standards Publications. Valid statistical sampling frequencies other than those listed herein may be acceptable if evidence of statistical control can be demonstrated. This guide applies only to extruded dielectric power, control, instrumentation, and portable cables.

This guide does not apply to those requirements to which each production or shipping length of completed cable must comply as specified in the applicable ICEA Standards.

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Section 1 GUIDE FOR SAMPLING FREQUENCIES

1.1 DEFINITIONS

The following definitions apply to this guide.

sample: A piece or section of cable taken from a production or shipping length or small quantity taken from a lot of material before application to the cable.

specimen: A test unit prepared from a sample.

sampling plan: A procedure for taking samples as a function of the number of production or shipping lengths or reels or quantity of cable. (The eleven sampling plans used in this ICEA guide are shown in Section 2.)

lot: A quantity of cable or material produced at the same location under the same manufacturing conditions during the same time period.

metric conversion: To convert feet to meters, multiply by 0.305. To convert kcmil to square millimeters, multiply by 0.507. To convert inches to millimeters, multiply by 25.4.

1.2 SELECTION OF SAMPLES

1.2.1 Sample for Tests on Cable or Specimens from Cable

Each cable sample shall be taken from an accessible end of different coils or reels, selected at random. Each sample shall be traceable to the coil or reel from which it was selected.

1.2.2 Samples for Tests on Conducting Materials Intended for Extrusion

One sample of material for each specified test shall be molded from each lot of material intended for extrusion on cable.

1.2.3 Sample Plans for Other Tests

A sampling plan for other tests specified in an ICEA Standards Publication shall be selected in accordance with Section 3.

1.3 SAMPLE CONFORMANCE

If all of the samples pass the test specified in a standard, the quantity of cable that they represent shall be considered as meeting the requirements of that standard.

1.4 RESAMPLING

If any sample fails to pass a test specified in a standard, the length of cable from which the sample was taken shall be considered as not meeting the requirements of that standard and another sample shall be taken from each of two other lengths of cable in the quantity of cable under test. If either of the second samples fail to pass the test, the quantity of cable shall be considered as not meeting the requirements of this standard. If both such second samples pass the test, the quantity of cable (except the length represented by the first sample) shall be considered as meeting the requirements of the standard.

Failure of any sample shall not preclude resampling and retesting the length of cable from which the original sample was taken.

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