

IEC TR 62839-1

Edition 1.0 2014-11

TECHNICAL REPORT



Environmental declaration –

Part 1: Wires, cables and accessory products - Specific rules

INTERNATIONAL ELECTROTECHNICAL COMMISSION

PRICE CODE

P

ICS 13.020.01; 33.120.10; 33.120.20

ISBN 978-2-8322-1921-8

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Communication and data wires and cables	7
4.1 Functional unit and reference flow description	7
4.2 System boundaries	
4.2.1 Overview	8
4.2.2 Installation phase	8
4.2.3 Use phase	8
4.2.4 Lifetime and use rates	12
4.2.5 End of life phase	12
5 Control and command wires and cables	13
5.1 Functional unit and reference flow description	13
5.2 System boundaries	13
5.2.1 Overview	13
5.2.2 Installation phase	13
5.2.3 Use phase	14
5.2.4 End of life phase	14
6 Accessories FFS	14
Annex A (informative) Applications	15
Table 1 – Twisted pair cables	10
Table 2 – Optical cables	12
Table A.1 – Table of applications	

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENVIRONMENTAL DECLARATION -

Part 1: Wires, cables and accessory products – Specific rules

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

The main task of IEC technical committees is to prepare International Standards. However, a technical committee may propose the publication of a technical report when it has collected data of a different kind from that which is normally published as an International Standard, for example "state of the art".

IEC TR 62839-1, which is a technical report, has been prepared by IEC technical committee 46: Cables, wires, waveguides, R.F. connectors, R.F. and microwave passive components and accessories.

-4-

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
46/496/DTR	46/528/RVC

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62839 series, published under the general title *Environmental declaration*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

ENVIRONMENTAL DECLARATION -

Part 1: Wires, cables and accessory products – Specific rules

1 Scope

This part of IEC 62839 specifies the PSR (product specific rules) for wires and cables used for communication, data, control and command. This PSR covers the use, installation and end-of-life stages and provides methodological precisions to PEP/PCR writing for "wires and cables and accessories" products used for communication, data, control and command. PSR and general rules all together form the product category rules.

ISO 14025:2006 establishes the principles and specifies the procedures for developing Type III environmental declaration programmes and Type III environmental declarations. It specifically establishes the use of the ISO 14040 series of standards in the development of Type III environmental declaration programmes and Type III environmental declarations. It establishes principles for the use of environmental information, in addition to those given in ISO 14020:2000.

Type III environmental declarations as described in ISO 14025:2006 are primarily intended for use in business-to-business communication, but their use in business-to-consumer communication under certain conditions is not precluded. These environmental declarations, referred here after as PEP, follow a specific set of rules and requirements specified in product category rules declaration that are referred here after as "PEP/PCR".

Three categories of wires and cables are covered:

- communication and data wires and cables, which may have metal or optical fiber conductors;
- control and command wires and cables, which can have metal or fiber optical conductors;
- accessories.

This document only deals with the "wires and cables" products. "Accessories products" are for further study.

This document is primarily intended for:

- environment and/or product managers;
- LCA (life cycle assessment) experts in companies, in charge of PEP/PCR development;
- verifiers in charge of PEP/PCR conformity assessment in accordance with the defined rules.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60793 (all parts), Optical fibres

- 6 -

IEC 60793-2-10, Optical fibres – Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres

IEC 60794 (all parts), Optical fibre cables

IEC 61156 (all parts), Multicore and symmetrical pair/quad cables for digital communications

IEC 61156-5, Multicore and symmetrical pair/quad cables for digital communications – Part 5: Symmetrical pair/quad cables with transmission characteristics up to 1 000 MHz – Horizontal floor wiring – Sectional specification

IEC 61156-7, Multicore and symmetrical pair/quad cables for digital communications - Part 7: Symmetrical pair cables with transmission characteristics up to 1 200 MHz - Sectional specification for digital and analog communication cables

ISO/IEC 15018, Information technology - Generic cabling for homes

ISO 14020:2000, Environmental labels and declarations – General principles

ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures

ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework

ISO 14044, Environmental management – Life cycle assessment – Requirements and guidelines