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Guidance on the environmentally conscious design of fibre optics related products and subsystems

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GUIDANCE ON THE ENVIRONMENTALLY CONSCIOUS DESIGN OF FIBRE OPTICS RELATED PRODUCTS AND SUBSYSTEMS

FOREWORD

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IEC 62785, which is a technical report, has been prepared by IEC technical committee 86: Fibre optics.

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

Enquiry draft	Report on voting
86/433/DTR	86/441/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 technical report should be read in conjunction with IEC 62430:2009.

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

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site 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- withdrawn,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.

INTRODUCTION

Fibre optics related products and subsystems are high performance systems. Their characteristics can have a negative impact on our environment in one way or another through their entire life cycle (design, manufacturing, use, recycling, and disposal).

Among several international standards and guidelines relevant to environmental consciousness, IEC 62430:2009 is the most recently published normative standard of a horizontal nature. Although optical fibres, optical cables, fibre optic interconnecting devices and passive components can be understood as non-electrical or non-electronic, they are within the scope of IEC TC86 (Fibre optics). Thus, designing fibre optic products and subsystems would need to conform to IEC 62430.

This Technical Report therefore provides informative guidance to assist the designer with regard to the general aspects of environmentally conscious design covered by IEC 62430. After quickly grasping the substance of the IEC 62430 requirements through this technical report, it will be necessary to refer directly to the main text of IEC 62430 for details.

GUIDANCE ON THE ENVIRONMENTALLY CONSCIOUS DESIGN OF FIBRE OPTICS RELATED PRODUCTS AND SUBSYSTEMS

1 Scope and objective

This Technical Report, reiterates all the key normative “shall” texts included in IEC 62430 that specify requirements and procedures to integrate environmental aspects into the design and development processes of electrical and electronic products, including combinations of products, and the materials and components of which they are composed. This report also conveys information on the experiences and best practices of environmental consciousness of fibre optics related products and subsystems.

The objectives of this report are to

– help fibre optic industries reduce negative environmental impacts of the equipment and subsystems throughout the lifecycle (design, manufacturing, use, recycling, and disposal),

– raise awareness of IEC 62430 and other standards among fibre optic industries, particularly its mandatory requirements,

– share industry information to cooperatively increase the level of environmental consciousness of fibre optic industries.

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 62075:2012, *Audio/video, information and communication technology equipment – Environmentally conscious design*

IEC 62430:2009, *Environmentally conscious design for electrical and electronic products*

ISO/TR 14006:2011, *Environmental management systems – Guidelines for incorporating design*

ISO/TR 14062:2002, *Environmental management – Integrating environmental aspects into product design and development*

ITU-T-L.1100, *Procedure for recycling rare metals in information and communication technology goods*