

Plastics warning devices for underground cables and pipelines with visual characteristics

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12613:2009 sisaldab Euroopa standardi EN 12613:2009 ingliskeelset teksti.

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English Version

**Plastics warning devices for underground cables and pipelines
with visual characteristics**

Dispositifs avertisseurs à caractéristiques visuelles, en
matière plastique, pour câbles et canalisations enterrés

Warneinrichtungen aus Kunststoff mit visuellen
Eigenschaften für erdverlegte Kabel und Rohrleitungen

This European Standard was approved by CEN on 20 May 2009.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN 12613:2009) has been prepared by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by NBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12613:2001.

This document is a revision of EN 12613:2001 with the following modifications:

- review of the test method for assessing the visual characteristics of the warning devices (Annex A) while keeping the principle and the functional features specified in EN 12613:2001;
- addition of test conditions for assessing the visual characteristics of the warning devices wider than 500 mm;
- updating of the normative references;
- improvement of the subclauses for the laying characteristics;
- improvement of the subclauses for the resistance against micro-organisms, to UV-light and temperature stability.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

Visual warning devices are used for the manual or mechanized laying of cables and piping buried in ground such as electrical power cables, communication cables, pressure and non-pressure piping systems.

The purpose of warning devices is to warn of the presence of a pipe or a cable, when opening a trench, to indicate its orientation and to identify the equipment protected.

The warning devices are expected to last at least the lifetime of the equipments with which they are associated.

1 Scope

This European Standard specifies the material, mechanical and functional (fitness for purpose) requirements for warning devices with visual characteristics manufactured from plastics, intended to indicate the presence of cables and piping systems buried in ground when opening trenches and more generally during digging work.

This European Standard also specifies the test methods referred to in this document.

This European Standard is applicable to two types of visual warning devices: tapes (type 1) and meshes (type 2).

2 Normative references

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

EN 60898-1:2003, *Electrical accessories — Circuit breakers for overcurrent protection for household and similar installations — Part 1: Circuit-breakers for a.c. operation (IEC 60898-1:2002, modified)*

EN ISO 175, *Plastics — Method of test for determination of the effects of immersion in liquid chemicals (ISO 175:1999)*

EN ISO 846, *Plastics — Evaluation of the action of microorganisms (ISO 846:1997)*

EN ISO 4892-1, *Plastics — Methods of exposure to laboratory light sources — Part 1: General guidance (ISO 4892-1:1999)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

type 1 warning device

strip manufactured from plastics to warn of the presence of underground cables or pipes during excavation

3.2

type 2 warning device

mesh/net manufactured from plastics to warn of the presence of underground cables or pipes during excavation

3.3

nominal width of a warning device (W_0)

overall width of the warning device, as declared by the manufacturer, in millimetres

3.4

longitudinal direction

direction corresponding to the extrusion direction, parallel to the length of the reel

3.5

transversal direction

direction parallel to the width (at right angle to the length)