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Standards

Irish Standard  
I.S. EN 50525-2-81:2011

Electric cables - Low voltage energy cables of rated voltages up to and including 450/750 V ( $U_0/U$ ) -- Part 2-81: Cables for general applications - Cables with crosslinked elastomeric covering for arc welding

## I.S. EN 50525-2-81:2011

*Incorporating amendments/corrigenda issued since publication:*

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|--|--|---|
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EUROPEAN STANDARD

**EN 50525-2-81**

NORME EUROPÉENNE

May 2011

EUROPÄISCHE NORM

ICS 29.060.20

Supersedes HD 22.6 S2:1995 + corr. Jun.1995 + A1:1999 + A2:2004

English version

**Electric cables -  
Low voltage energy cables of rated voltages up to and including 450/750 V  
( $U_0/U$ ) -  
Part 2-81: Cables for general applications -  
Cables with crosslinked elastomeric covering for arc welding**

Câbles électriques -  
Câbles d'énergie basse tension de tension  
assignée au plus égale à 450/750 V  
( $U_0/U$ ) -  
Partie 2-81: Câbles pour applications  
générales -  
Câbles pour soudage à l'arc isolés en  
matériau élastomère réticulé

Kabel und Leitungen -  
Starkstromleitungen mit Nennspannungen  
bis 450/750 V ( $U_0/U$ ) -  
Teil 2-81: Starkstromleitungen für  
allgemeine Anwendungen -  
Lichtbogenschweißleitungen mit  
vernetzter Elastomer- Hülle

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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## **Foreword**

This European Standard was prepared by the Technical Committee CENELEC TC 20, Electric cables.

The text of the draft was submitted to the formal vote and was accepted by CENELEC as EN 50525-2-81 on 2011-01-17.

This document, which is one of a multipart series, supersedes HD 22.6 S2:1995 + A1:1999 + A2:2004.

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

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2012-01-17
  - latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2014-01-17
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## Contents

|  | Page |
|--|------|
| 1 Scope .....  | 4    |
| 2 Normative references .....   | 4    |
| 3 Terms and definitions .....  | 5    |
| 4 Arc welding cables – H01N2-D and H01N2-E .....   | 5    |
| 4.1 Construction .....   | 5    |
| 4.2 Requirements .....   | 5    |
| Annex A (normative) Tests for cables to EN 50525-2-81 .....                                | 7    |
| Annex B (normative) General data .....   | 8    |
| Annex C (normative) Requirements for the voltage test on completed cables .....            | 9    |
| Annex D (normative) Requirements for the static flexibility test on completed cables ..... | 10   |
| Bibliography .....   | 11   |

### Tables

|   |    |
|---|----|
| Table A.1 .....                                 | 7  |
| Table B.1 — General data for Type H01N2-D ..... | 8  |
| Table B.2 — General data for Type H01N2-E ..... | 8  |
| Table C.1 .....                                 | 9  |
| Table D.1 .....                                 | 10 |

## 1 Scope

This European Standard applies to single core, crosslinked elastomer covered arc welding cables.

The cables are of rated voltage  $U_0/U$  100/100 V.

The cables are intended for connections between the welding power source and the electrode holder and the work piece.

Two types of cable are included, with respectively Class D and Class E conductors. These conductors are more flexible than Class 6 to EN 60228, with Class E having the greater flexibility.

The maximum conductor operating temperature for each of the cables in this standard is 85 °C.

NOTE HD 516 contains extensive guidance on the safe use of cables in this standard, and gives specific current ratings and volt drop data.

This EN 50525-2-81 should be read in conjunction with EN 50525-1, which specifies general requirements.

## 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.

NOTE One or more references to the standards below are in respect of a specific sub-division of that standard, for instance a clause, a table, a class or a type. Cross-references to these standards are undated and, at all times, the latest version shall apply.

|              |  |
|--------------|--|
| EN 50363-1   | Insulating, sheathing and covering materials for low voltage energy cables – Part 1: Cross-linked elastomeric insulating compounds   |
| EN 50363-2-2 | Insulating, sheathing and covering materials for low voltage energy cables – Part 2-2: Cross-linked elastomeric covering compounds   |
| EN 50395     | Electrical test methods for low voltage energy cables  |
| EN 50396     | Non electrical test methods for low voltage energy cables  |
| EN 50525-1   | Electric cables – Low voltage energy cables of rated voltages up to and including 450/750 V ( $U_0/U$ ) – Part 1: General requirements   |
| EN 60228     | Conductors of insulated cables (IEC 60228)   |
| EN 60332-1-2 | Tests on electric and optical fibre cables under fire conditions – Part 1-2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW pre-mixed flame (IEC 60332-1-2) |
| EN 60811-1-4 | Insulating and sheathing materials of electric and optical cables – Common test methods – Part 1-4: General application – Tests at low temperature (IEC 60811-1-4)   |

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