



National Standards Authority of Ireland

IRISH STANDARD

**I.S. 202:Part 10:2003**

ICS 29.060.20

**CABLES OF RATED VOLTAGES UP TO AND  
INCLUDING 450/750V AND HAVING  
CROSS-LINKED INSULATION  
PART 10: EPR INSULATED AND  
POLYURETHANE SHEATHED FLEXIBLE  
CABLES**

National Standards  
Authority of Ireland  
Dublin 9  
Ireland

Tel: (01) 807 3800  
Tel: (01) 807 3838

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I.S. 202:Part 10:2003

DECLARATION  
OF  
SPECIFICATION  
ENTITLED  
  
CABLES OF RATED VOLTAGES UP TO AND INCLUDING 450/750V AND HAVING CROSS-LINKED  
INSULATION  
  
PART 10: EPR INSULATED AND POLYURETHANE SHEATHED FLEXIBLE CABLES  
  
AS  
  
THE IRISH STANDARD SPECIFICATION FOR  
  
CABLES OF RATED VOLTAGES UP TO AND INCLUDING 450/750V AND HAVING CROSS-LINKED  
INSULATION  
  
PART 10: EPR INSULATED AND POLYURETHANE SHEATHED FLEXIBLE CABLES

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NSAI in exercise of the power conferred by section 16 (5) of the National Standards Authority of Ireland Act, 1996 (No. 28 of 1996) and with the consent of the Minister for Enterprise Trade and Employment, hereby declares as follows:

1. This instrument may be cited as the Standard Specification (Cables of rated voltages up to and including 450/750V and having cross-linked insulation Part 10: EPR Insulated and Polyurethane Sheathed Flexible Cables) Declaration, 2003.
2. (1) The Specification set forth in the Schedule to this declaration is hereby declared to be the standard specification for Cables of rated voltages up to and including 450/750V and having cross-linked insulation Part 10: EPR Insulated and Polyurethane Sheathed Flexible Cables.  
  
(2) The said standard specification maybe cited as Irish Standard 202:Part 10:2003 or as I.S. 202:Part 10:2003.
3. (1) The Standard Specification, Rubber Insulated Cable and Flexible Cords of Rated Voltage up to and including 450/750V Declaration 1989, is hereby revoked.  
  
(2) Reference in any other standard specification to the Instrument hereby revoked and to Irish Standard 202:1989 thereby prescribed, shall be construed, respectively, as references to this Instrument and to Irish Standard 202:2003.

## FOREWORD

The Irish Standard Specification I.S. 202 Part 10:2003, was prepared by the National Standards Authority of Ireland on the basis of a submission from Technical Committee No. 14 which is a Technical Subcommittee of the Electro-Technical Council of Ireland. The ETCI is the national body responsible for the harmonization of standards in the field of electro-technology and represents Ireland in IEC and CENELEC.

I.S. 202 now has the following parts:

- I.S. 202:Part 1 General requirements
- I.S. 202:Part 2 Test methods
- I.S. 202:Part 3 Heat resistant silicone rubber insulated cables
- I.S. 202:Part 4 Cords and flexible cables
- I.S. 202:Part 5 (Spare)
- I.S. 202:Part 6 Arc welding cables
- I.S. 202:Part 7 Cables with increased heat resistance for internal wiring for a conductor temperature of 110°C
- I.S. 202:Part 8 Polychloroprene or equivalent synthetic elastomer sheathed cable for use as decorative chains
- I.S. 202:Part 9 Single core non-sheathed cables for fixed wiring having low emission of smoke and corrosive gases
- I.S. 202:Part 10 EPR insulated and polyurethane sheathed flexible cables
- I.S. 202:Part 11 EVA cords and flexible cables
- I.S. 202:Part 12 Heat resistant EPR cords and flexible cables
- I.S. 202:Part 13 Single and multicore flexible cables, insulated and sheathed with crosslinked compound and having low emission of smoke and corrosive gases
- I.S. 202:Part 14 Cords for applications requiring high flexibility
- I.S. 202:Part 15 - Multicore cables insulated and shielded with heat-resistant silicone rubber
- I.S. 202:Part 16 - Water resistant polychloroprene or equivalent synthetic elastomer sheathed cables

In order that this revision of Part 10 of I.S. 202 does not introduce unnecessary changes to long-established clause numbers, the Normative References (which would otherwise be inserted as clause 2) are given in Annex A.

**Schedule**  
**Cables of Rated Voltages up to and including 450/750V and having cross-linked insulation**  
**Part 10 : EPR Insulated and Polyurethane Sheathed Flexible Cable**

1. Scope

This Part 10 of the Standard details the particular requirements for ethylene-propylene rubber insulated, and thermoplastic polyurethane sheathed cable for a maximum conductor temperature of 90°C and lowest handling temperature of -40°C.

Each cable shall comply with the appropriate requirements given in Part 1 of this HD and the particular requirements of this Part.

NOTE 1: The sheath specified in this Part of I.S. 202 is unvulcanised. The requirements and special additional test methods are therefore included as Annex A to this Part.

NOTE 2: The overall dimensions of the cables in this Part of I.S. 202 have been calculated in accordance with EN 60719.

2. Normative references

I.S. 202:Part 10 incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to, or revisions of, any of these publications apply to I.S. 202:Part 10 only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

I.S. 270 Conductors of insulated cables (Endorsing IEC 228 and 228A)

I.S. EN 60811 *Series* Insulating and sheathing materials of electric and optical cables - Common test methods

I.S. EN 60719 Calculation of the lower and upper limits for the average outer dimensions of cables with circular copper conductors and of rated voltages up to and including 450/750V

3. EPR insulated and polyurethane sheathed flexible cable (300/500V)

3.1 Code designation

H05BQ-F

3.2 Rated voltage

300/500V

3.3 Construction

3.3.1 Conductor

Number of conductors: 2, 3, 4 or 5.

The conductors shall be in accordance with the requirements given in I.S. 270 for Class 5 conductors. The wires may be plain or tinned.

3.3.2 Separator

A separator of suitable material may be applied around each conductor.

3.3.3 Insulation

The insulation shall be rubber compound of Type EI 6 applied around each conductor.

The insulation shall be applied by extrusion.

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