

**IRISH STANDARD SPECIFICATION**

**THE ERECTION OF ANTI-INTRUDER  
CHAIN LINK FENCES**

I.S. 203 : 1980

*Price £2.60*

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## FOREWORD

It is not possible economically to erect a fence which cannot be negotiated by an intruder given time and opportunity free from observation. It can also be accepted that an intruder will not wish to advertise his presence to a patrolling guard and that he will, therefore, endeavour to negotiate a fence without leaving obvious traces. In order to make the task of the intruder more difficult and at the same time to assist patrols, attention is drawn to the following:—

- 1 The nominal length of side of the chain link mesh should be limited to 50mm so as to make footholds difficult.
- 2 The bottom of the chain link fencing should be fastened to the ground to make difficult and time-consuming unauthorised access under the fence.
- 3 The top edge of the chain link should be protected (and if exposed, the bottom edge should also be protected) by the addition of a line of barbed wire.
- 4 The top lines of barbed wire should be fitted with droppers so that bunching together is made difficult and time-consuming.
- 5 The bolts should be burred over the nuts to make dismantling difficult.
- 6 The angle at any change of direction in the fence should be (where possible) not less than 130° to avoid providing facilities for climbing.
- 7 The gates should be designed to eliminate as far as possible any increased facilities for unauthorised entry.

It should be noted that throughout this specification the spacing of posts is given in terms of centre-to-centre dimensions.

## DECLARATION

OF

SPECIFICATION

ENTITLED

THE ERECTION OF ANTI-INTRUDER CHAIN LINK FENCES

AS

THE IRISH STANDARD SPECIFICATION FOR

THE ERECTION OF ANTI-INTRUDER CHAIN LINK FENCES

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The Institute for Industrial Research and Standards in exercise of the power conferred by section 20 of the Industrial Research and Standards Act, 1961 (No. 20 of 1961), and with the consent of the Minister for Industry, Commerce and Tourism hereby declares as follows:

1. This instrument may be cited as the Standard Specification (The Erection of Anti-Intruder Chain Link Fences) Declaration, 1980.
2. (1) The Specification set forth in the Schedule to this declaration is hereby declared to be the standard specification for The Erection of Anti-Intruder Chain Link Fences
- (2) The said standard specification may be cited as Irish Standard 203: 1980 or as I.S. 203: 1980.

## SCHEDULE

# The Erection of Anti-Intruder Chain Link Fences

### 1. SCOPE

**1.1** This specification covers the requirements for chain link fences for security purposes. The fences shall be approximately 1.8m to the top of the chain link fencing at the posts and approximately 2.4m in vertical height to the top line of barbed wire attached to the cranked tops of the posts.

### 2. MATERIALS

#### 2.1 Wire products

##### 2.1.1 Chain link fencing

The chain link fencing shall be woven from galvanized wire whose core is 3.15m in diameter with a mesh size of 50mm and shall conform in its manufacture with the requirements of I.S. 130: 1980 "Chain Link Fencing".

##### 2.1.2 Line wire

The line wire shall be 4mm diameter galvanized mild steel.

##### 2.1.3 Stirrup wire

The wire for securing the line wires to the posts shall be 2.5mm diameter galvanized mild steel.

##### 2.1.4 Tying wire

The wire for securing the chain link fencing to the line wires shall be 1.6mm diameter galvanized mild steel.

##### 2.1.5 Plastics coated wire

At the option of the purchaser, the wire products specified in this clause may be supplied with plastics coating which shall comply with the requirements of I.S. 130: 1980.

##### 2.1.6 Barbed wire

Barbed wire with barb spacing at 75mm shall comply with the requirements of I.S. 121: 1980, Galvanized Barbed Wire.

#### 2.2 Posts and struts

##### 2.2.1 Concrete posts and struts

Concrete posts and struts shall comply with the requirements of I.S. 177: 1980 "Anti-Intruder Concrete Fence Posts".

##### 2.2.2 Steel Posts and Struts

Posts and struts shall be of mild steel angle complying with British Standards 4360, Weldable Structural Steels, and 4: Part 1, Structural Steel Sections – Hot-Rolled Sections, or steel tube complying with B.S. 4: Part 2, Structural Steel Sections - Hot-Rolled Hollow Sections, published by the British Standards Institution, 2 Park Street, London W1A 2BS. They shall be of the dimensions shown in Table 1, and galvanized after manufacture to meet the requirements of B.S. 729, Hot-Dip Galvanized Coatings on Iron and Steel Articles. The bottom of all angle steel posts and struts shall be spragged and tubes and hollow sections shall have base plates 150mm × 150mm × 3mm to provide a key in concrete bases. The top of all hollow steel posts shall be capped and sealed.\*

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\*Safety precautions consistent with the design should be observed during the galvanizing process.

## 2.3 Steel extension arms

### 2.3.1 For concrete posts

Additional extension arms to support barbed wire on intermediate posts shall, when specified, consist of mild steel angle 44.5mm x 44.5mm x 4.67mm galvanized to meet the requirements of B.S. 729. Each arm shall be holed to take half round staples for fixing three lines of barbed wire approximately 200mm apart and shall be provided with two M10 diameter galvanized bolts.

*Note:* The designation “M10” relates to one size of a series of sizes of bolts specified in ISO 261 – 1973, ISO General purpose metric screw threads – General Plan.

**TABLE 1**

DIMENSIONS FOR STEEL FENCE POSTS

Types of posts	Intermediate posts		Straining posts		Struts (see Note 1)	
	Vertical	Section	Vertical	Section	Vertical	Section
Mild steel angle	m 3.0	mm 50.8 x 50.8 x 6.32	m 3.0	mm 63.5 x 63.5 x 7.9	m 3.0	mm 44.5 x 44.5 x 4.67
Steel tube	3.0	48.3 o.d. x 3.2	3.0	60.3 o.d. x 4.0	3.0	48.3 o.d. x 3.2
Rectangular hollow section	3.0	38.1 x 38.1 x 4.0	3.0	50.8 x 50.8 x 4.0	3.0	38.1 x 38.1 x 3.2

**Note 1:** All struts should have a horizontal tie bar not less than 0.75 m long securely fixed to strut and straining post with bolts not less than 7.9 mm diameter. The tie bar should be the same section as the strut

Extension arms to support barbed wire on straining posts shall, when specified, consist of mild steel angle 50.8mm x 50.8mm x 6.32mm, galvanized to meet the requirements of B.S. 729. Each arm shall be holed to take eyebolts for securing three lines of barbed wire 200mm apart and shall form an angle of 40° to 45° with the vertical line of the post and shall be of such a length as will increase the vertical height of the fence to at least 2.3m.

### 2.3.2 For steel angle posts

Extension arms shall be as specified above and shall be either bolted or welded on, or shall be a continuation of the steel post. The extension arms shall form an angle of 40° to 45° with the vertical line of the post and shall be of such a length as will increase the vertical height of the fence to at least 2.3m.

### 2.3.3 For tubular steel posts (circular and rectangular)

Extension arms shall be welded on or shall be a continuation of the tubular post. The extension arms shall form an angle of 40° to 45° with the vertical line of the post and shall be of such a length as will increase the vertical height of the fence to at least 2.3m.

## 2.4 Gate posts

2.4.1 Gate posts shall be free standing and shall be of steel sections complying with the requirements of B.S. 4360 Part 1 or circular and rolled hollow sections complying with Grade 16 of B.S. 1775, Steel Tubes for Mechanical, Structural and General Engineering Purposes, B.S. 4360 and B.S. 4: Part 2. They shall be galvanized to comply with B.S. 729. They shall be 3.65m in length and of dimensions appropriate to the type selected from Table 2.

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