



National Standards Authority of Ireland

IRISH STANDARD

I.S. 424 : 1990

ICS 23.040.01

Revoked

**UNPLASTICIZED POLYVINYLCHLORIDE
(PVC-U) PIPES AND FITTINGS FOR BURIED
DRAINAGE AND SEWAGE SYSTEMS -
SPECIFICATIONS**

National Standards
Authority of Ireland
Dublin 9
Ireland

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

*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland
and comes into effect on:
May 4, 1990*

**NO COPYING WITHOUT NSAI
PERMISSION EXCEPT AS
PERMITTED BY COPYRIGHT
LAW**

© NSAI 1990

Price Code G

Údarás um Chaighdeán Náisiúnta na hÉireann

DECLARATION

OF

SPECIFICATION

ENTITLED

UNPLASTICIZED POLYVINYLCHLORIDE (PVC-U) PIPES AND FITTINGS FOR
BURIED DRAINAGE AND SEWAGE SYSTEMS – SPECIFICATIONS

AS

THE IRISH STANDARD SPECIFICATION FOR

UNPLASTICIZED POLYVINYLCHLORIDE (PVC-U) PIPES AND FITTINGS FOR
BURIED DRAINAGE AND SEWAGE SYSTEMS – SPECIFICATIONS

EOLAS - The Irish Science and Technology Agency in exercise of the power conferred by section 20 (3) of the Industrial Research and Standards Act, 1961 (No. 20 of 1961) and the Science and Technology Act, 1987 (No. 30 of 1987), and with the consent of the Minister for Industry and Commerce, hereby declares as follows:

1. This instrument may be cited as the Standard Specification (Unplasticized Polyvinylchloride (PVC-U) Pipes and Fittings for Buried Drainage and Sewage Systems – Specifications) Declaration, 1990.
2. (1) The Specification set forth in the Schedule to this declaration is hereby declared to be the standard specification for Unplasticized Polyvinylchloride (PVC-U) Pipes and Fittings for Buried Drainage and Sewage Systems – Specifications.
- (2) The said standard specification may be cited as Irish Standard 424 : 1990 or as I.S. 424 : 1990.

Foreword

This Irish Standard has been produced as an interim measure, until a European Standard is issued, to replace the existing Department of Local Government Provisional Specification for soil pipes, drains, sewers and fittings made of unplasticized Polyvinylchloride (uPVC) 1977 which needs a complete updating. It is based principally on ISO*/DIS 4435 and aims to prepare the industry for the new CEN** Standard and the open market conditions of 1992.

Main deviations from ISO/DIS 4435 are as follows:-

This Standard specifies additional pipes with nominal sizes of 355 and 450 (ISO 161 Part 1) and omits the nominal size of 125. It specifies the use of swept fittings in certain cases. It requires the impact strength test for pipes and does not permit an alternative test to this but allows a tensile strength test as an alternative to the internal pressure test for nominal sizes of 110 and 160. It does not require an impact strength test for fittings. It includes marking provisions and requires that the colour of the pipes and fittings shall normally be brown.

ISO/DIS 4435 Clause 5.1.2 leaves the choice of size range of pipes to the national standards bodies and at the request of industry and users only Series 20 from Table 3 of ISO/DIS 4435 is included in this Standard.

It is proposed to replace this Standard by the CEN Standard as soon as it is published.

*International Standards Organization

**European Committee for Standardization

Copies of Irish and international standards and related publications may be purchased from the National Standards Authority of Ireland, Standards Sales Office, Glasnevin, Dublin 9. Telephone: (01) 370101. Telex: 32501. Fax: 369821.

CONTENTS

Declaration	i
Foreword	1

Clauses

1. Scope	3
2. Normative references	3
3. Symbols	4
4. Material	4
5. Geometrical characteristics	5
6. Mechanical test requirements	13
7. Physical test requirements	13
8. Elastomeric sealing elements (rings)	14
9. Joint assemblies	14
10. Marking	19
11. Delivery conditions	20

Tables

1. Symbols	4
2. Nominal outside diameter	5
3. Nominal wall thickness	6
4. Single sockets and spigot ends for elastomeric sealing ring joints	7
5. Sockets and spigot ends for cemented-type joints	9
6. Dimensions of swept fittings	11
7. Internal pressure test requirements	13

Figures

1. Dimensions	5
2. Length of pipe	7
3. Basic dimensions of single sockets and spigot ends for elastomeric sealing ring joints	8
4. Wall thickness at socket	9
5. Effective sealing point	9
6. Basic dimensions of sockets and spigot ends for cemented-type joints	9
7. Dimensions of single-socket fittings	10
8. Dimensions of double-socket fittings	11
9. Location of dimensions for swept fittings	12
10. Spigot length of fitting	12
11. Apparatus for the external hydrostatic test	16
12. Apparatus for the internal negative air pressure test	16
13. Apparatus for the diameter distortion test	17
14. Angular deflection test	18

SCHEDULE

UNPLASTICIZED POLYVINYLCHLORIDE (PVC-U) PIPES AND FITTINGS FOR BURIED DRAINAGE AND SEWERAGE SYSTEMS - SPECIFICATIONS

1. SCOPE

This Standard specifies unplasticized polyvinylchloride (PVC-U) pipes and fittings with elastomeric sealing ring joints for outside diameters from 110 to 630 mm and with cemented type joints for outside diameters from 110 to 200 mm, intended for buried gravity drain and sewer pipes for the transportation of soil and waste discharge of domestic and industrial origin, and surface water.

In case of industrial discharge, chemical and temperature resistance have to be taken into account.

2. NORMATIVE REFERENCES

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. At the time of publication, the editions indicated were valid. Members of IEC* and ISO maintain registers of currently valid International Standards.

ISO 265-1 : 1988	Pipes and fittings of plastics materials - Fittings for domestic and industrial waste pipes - Basic dimensions - Metric series - Part 1: Unplasticised polyvinyl chloride (PVC-U).
ISO 580 : __ ¹	Fittings of injection-moulded unplasticized polyvinyl chloride (PVC-U) - Hot oven test.
ISO 1167 : __ ²	Thermoplastics pipes for the transport of fluids - Determination of the resistance to internal pressure.
ISO 2505 : 1981	Unplasticized polyvinyl chloride (PVC) pipes - Longitudinal reversion - Test methods and specification.
ISO 2507 : 1982	Unplasticized polyvinyl chloride (PVC) pipes and fittings - Vicat softening temperature - Test method and specification.
ISO 3127 : 1980	Unplasticized polyvinyl chloride (PVC) pipes for the transport of fluids - Determination and specification of resistance to external blows.
ISO 3504 : __ ³	Pipes of polyvinyl chloride (PVC) - Determination and specification of tensile properties.

¹To be published. (Revision of ISO 580 : 1973.)

²To be published. (Revision of ISO 1167 : 1973.)

³To be published.

*International Electro-Technical Commission

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-