



MALAYSIAN STANDARD

MS 628 : PART 1 : 1999

SPECIFICATION FOR UNPLASTICISED PVC (uPVC) PIPES FOR WATER SUPPLY : PART 1 : PIPES (FIRST REVISION)

ICS : 23.040.20

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Committee representation

The Plastics Industry Standards Committee under whose supervision this Malaysian Standard was developed, comprises representatives from the following Government Ministries, Trade, Commerce and Manufacturing Associations, and Scientific and Professional Bodies.

Department of Standards Malaysia
Federation of Malaysian Consumers Associations
Federation of Malaysian Manufacturers
Institut Kimia Malaysia
Kumpulan IKRAM Sdn. Bhd.
Malaysian Plastics Manufacturers Association
Plastics and Rubber Institute of Malaysia
SIRIM Berhad (Polymers Technology Laboratory)
The Institution of Engineers Malaysia
Universiti Sains Malaysia

The Working Group on uPVC Pipes which developed this Malaysian Standard consists of the followings representatives:

Ir. Low Poh Fee (Chairman)	Cawangan Bekalan Air, Jabatan Kerja Raya
Cik Azlina Abd. Latif (Secretary)	SIRIM Berhad
Ir. Chris Choy/ Encik Mohd. Aziz Jaafar	GK- Hardie Sdn. Bhd.
Encik Kee Yeow Pheng/ Encik Saw Kong Chong	Arensi Holdings (M) Sdn. Bhd.
Encik Teo Kiew Khoon	Selangor Rubber Factory Sdn. Bhd.
Encik Yusof Ahmad/ Encik Alvin Chung	LYE Manufacturing Sdn. Bhd.
Encik Loh Yok Yeong	YL Foundry & Co. Sdn. Bhd.
Encik Mahmud Khairi Shahmin/ Encik Abd. Hafidz Othman	Vinidex (M) Sdn. Bhd.
Encik Ng Lian Beng	Paling Industries Sdn. Bhd.
Encik Jeffery Chan/ Encik Woo Boon Chin	Gulf Rubber (M) Sdn. Bhd.
Encik Mohd. Muhiddin Ahmad	Institut Teknologi Mara
Encik Danny Fong	Elf Atochem SEA Pte Ltd.
Puan Wong Fong Khay	Cawangan Bekalan Air, Jabatan Kerja Raya
Encik Wong Yin Pooi	Chien Jin Plastics Sdn. Bhd.
Encik Leong Khuan Mun/ Encik Abd. Razak Mat Jam	SIRIM Berhad

MS 628 : PART 1 : 1999

FOREWORD

This Malaysian Standard was developed by the Working Group on uPVC Pipes under the authority of the Plastics Industry Standards Committee.

This standard is the first revision of MS 628 : 1982 'Specification for unplasticised PVC pipe for cold water services'.

The major changes featured in this revision are as follows:

- a) The class of pipe ($6.0 \times 10^5 \text{ N/m}^2$) and class 7 have been removed.
- b) Requirements for materials have been amended.
- c) Requirements for the effects of materials on water quality have been modified.
- d) Requirements for quality control procedures have been added.
- e) A requirement for fracture toughness has been added, together with associated method of test (see Appendices F and G).
- f) The method for assessment of impact resistance has been modified to establish a maximum true impact rate (TIR) at a specified confidence level.

In the preparation of this standard, references were made to the following publications:

- | | |
|----------------------|--|
| MS 672 : 1980 | Specification for materials for rubber joints rings for water supply and drainage pipelines. |
| BS 3505 : 1986 | Specification for unplasticized polyvinyl chloride (PVC-u) pressure pipes for cold potable water. |
| BS 4346: Part 1:1970 | Specification for joints and fittings for use with uPVC pressure pipe.
Part 1: Injection moulded unplasticized PVC fittings for solvent welding for use with pressure pipe, including potable water supply. |
| BS 4346: Part 2:1970 | Specification for joints and fittings for use with uPVC pressure pipe.
Part 2: Mechanical joints & fittings principally of unplasticized PVC. |
| ISO 4422 : 1990 | Pipes and fittings made of unplasticized poly(vinyl chloride) (PVC-U) for water supply. |
| AS/NZS 1477 : 1996 | PVC pipes and fittings for pressure applications. |
| AS 1683.15.1 : 1990 | Methods of test for elastomers - International rubber hardness. |
| AS 1683.15.2 : 1990 | Methods of test for elastomers - Durometer hardness. |

FOREWORD (Contd.)

- DIN 8061: 1994 Unplasticized polyvinyl chloride pipes - General requirements and testing.
- DIN 19532: 1979 Pipelines of unplasticised polyvinyl chloride (rigid PVC, PVC-u) for drinking water supply, pipes, pipe joints, pipeline parts, DVGW technical rule.

This Malaysian Standard is one of a series of the following standards:

Specification for unplasticised PVC (uPVC) pipes for water supply:

Part 1: Pipes

Part 2: Joints and fittings for use with unplasticised PVC pipes

Part 3: Guide for installation

Part 2 is further subdivided into a number of sections as follows:

Section 2.1: uPVC joints and fittings

Section 2.2: Solvent cement

This Malaysian Standard supersedes MS 628 : 1982 'Specification for unplasticised PVC pipe for cold water services'.

Compliance with a Malaysian Standard does not of itself confer immunity from legal obligations.