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Plastics piping systems for soil and waste discharge (low and high temperature) inside buildings — Styrene copolymer blends (SAN + PVC)

Systèmes de canalisations en plastique pour l'évacuation des eauxvannes et des eaux usées (à basse et à haute température) à l'intérieur des bâtiments — Mélanges de copolymères de styrène (SAN + PVC)



Reference number ISO 19220:2004(E)

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Contents

1	Scope	1
2	Normative references	1
3	Symbols and abbreviations	2
3.1	Symbols	2
3.2	Abbreviation	3
4	Material	3
4.1	SAN + PVC compound	3
4.2	Reprocessable and recyclable material	3
4.3	Sealing ring retaining means	3
4.4	Fire behaviour	3
5	General characteristics	4
5.1	Appearance	4
5.2	Colour	4
6	Geometrical characteristics	4
6.1	General	4
6.2	Colour	4
6.3	Dimensions of fittings	7
6.4	Dimensions of sockets and pipe ends Types of fitting Mechanical characteristics of pipes General characteristics Additional characteristics Physical characteristics	8
6.5	Types of fitting	16
7	Mechanical characteristics of pipes	24
7.1	General characteristics	24
7.2	Additional characteristics	25
8	Physical characteristics	25
8.1	Physical characteristics of pipes	25
8.2	Physical characteristics of fittings	26
9	Performance requirements	27
10	Sealing rings	27
11	Adhesives	27
12	Marking	27
12.1		27
12.2	Minimum required marking of pipes	28
12.3	Minimum required marking of fittings	28
13	Installation of piping systems	28
Ann	ex A (informative) Additional characteristics of (SAN + PVC) pipes and fittings	30
	iography	31

Foreword

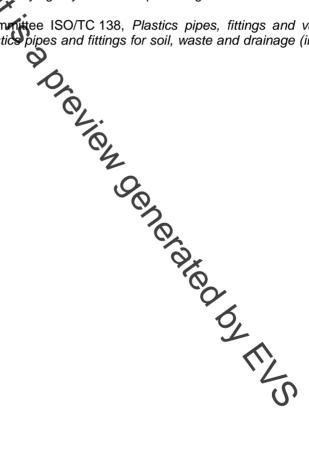
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ISO 19220 was prepared by Technical Committee ISO/TC 138, Plastics pipes, fittings and valves for the transport of fluids, Subcommittee SC 1, Plastics pipes and fittings for soil, waste and drainage (including land drainage).



Introduction

Pipes and fittings conforming to this International Standard also meet the corresponding requirements of EN 1565-1 which are applicable to those pipes and fittings which, according to EN 1565-1, are intended to be used inside buildings (application area code "B", see EN 1565-1) only.

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Plastics piping systems for soil and waste discharge (low and high temperature) inside buildings — Styrene copolymer blends (SAN + PVC)

1 Scope

This International Standard specifies the requirements for solid-wall styrene copolymer blend (SAN + PVC) pipes and fittings for soil and waste discharge (low and high temperature) above ground inside buildings, as well as the system itself. It does not include buried pipework.

It also specifies the test parameters for the test methods referred to in this International Standard.

This International Standard is applicable to SAN + PVC pipes and fittings, as well as assemblies of such pipes and fittings, intended to be used for the following purposes:

- a) soil and waste discharge pipework for the conveyance of domestic waste waters (low and high temperature);
- b) ventilation pipework associated with a),
- c) rainwater pipework inside the building.

It is applicable to pipes and fittings designed for tointing by means of elastomeric sealing rings, solvent cementing or integral dual-purpose sockets, i.e. for eastomeric ring seal joints and/or for solvent cement joints.

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, he latest edition of the referenced document (including any amendments) applies.

ISO 265-1, Pipes and fittings of plastics materials — Fittings for domestic and industrial waste pipes — Basic dimensions: Metric series — Part 1: Unplasticized poly(vinyl chloride) (PVC-U)

ISO 3126: $-^{1}$, Plastics piping systems — Plastics components — Determination of dimensions

ISO 8361-1, Thermoplastics pipes and fittings — Water absorption — Part 1: General test method

EN 681-1, Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 1: Vulcanized rubber

EN 681-2, Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 2: Thermoplastic elastomers

EN 727, Plastics piping and ducting systems — Thermoplastics pipes and fittings — Determination of Vicat softening temperature (VST)

EN 743:1994, Plastics piping and ducting systems — Thermoplastics pipes — Determination of the longitudinal reversion

¹⁾ To be published. (Revision of ISO 3126:1974)

EN 744, Plastics piping and ducting systems — Thermoplastics pipes — Test method for resistance to external blows by the round-the-clock method

EN 763:1994, Plastics piping and ducting systems - Injection-moulded thermoplastics fittings - Test method for visually assessing effects of heating

EN 1053, Plastics piping systems — Thermoplastics piping systems for non-pressure applications — Test method for watertightness

EN 1054, Plastics piping systems — Thermoplastics piping systems for soil and waste discharge — Test method for airtightness opjoints

EN 1055:1996, Plastics piping systems — Thermoplastics piping systems for soil and waste discharge inside buildings — Test method for esistance to elevated temperature cycling

EN 1411, Plastics piping and desting systems - Thermoplastics pipes - Determination of resistance to external blows by the staircase method

AN++ EN 1565-1, Plastics piping systems within the building structure — Styrene copolymer blends (SAN + PVC) — Part 1: Specifications for pipes, fittings and the system

Symbols and abbreviations 3

3.1 Symbols

- length of engagement A
- Blength of lead-in
- Cdepth of sealing zone
- d_{e} outside diameter (at any point)
- mean outside diameter d_{em}
- $d_{\sf n}$ nominal outside diameter
- inside diameter of the socket d_{s}
- mean inside diameter of the socket d_{sm}
- DN nominal size
- DN/OD nominal size (outside-diameter related)
- wall thickness (at any point) e
- mean wall thickness e_{m}
- wall thickness of the socket e_2
- e_3 wall thickness at the groove
- L_1 length of spigot
- L_2 length of solvent cement socket
- l effective length of a pipe