



Abu Dhabi Specification

معايير أبوظبي الفنية



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First Edition

الإصدار الأول

Non-metallic products used in contact with
water intended for human consumption
- Review and Recommendations

المنتجات غير المعدنية التي تكون على تلامس
مع المياه المعدّة للاستهلاك البشري
- مراجعة وتوصيات



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Amendment Page

To ensure that each copy of this ADS contains a complete record of amendments, the Amendment Page is updated and issued with each set of revised/new pages of the document. This Technical Report is a live document which can be amended when necessary. QCC operates a Plastic pipes Working Group which prepared this document and can review stakeholder comments in order to review an amend this document, issuing an updated version when

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About the Abu Dhabi Quality and Conformity Council

The Abu Dhabi Quality and Conformity Council (QCC) was established by law No. 3 of 2009, issued by His Highness Sheikh Khalifa Bin Zayed Al Nahyan, President of the UAE.

QCC is responsible for the development of Abu Dhabi Emirate's Quality Infrastructure, which enables industry and regulators to ensure that products, systems and personnel can be tested and certified to UAE and International Standards.

Products certified by QCC receive the Abu Dhabi Trustmark. The Trustmark is designed to communicate that a product or system conforms to various safety and performance standards that are set by Abu Dhabi regulators.

1- Foreword

The QCC Working Group for Plastic Pipes was established in June 2013 with a view to reviewing the available standards for plastic pipes with all standardization levels (International level, Regional level, National level as well as local level). Recommending the use of particular standards for plastic pipes that satisfy Abu Dhabi local requirements and requirements of stakeholders. The market for plastics in general is huge in the UAE and, according to the Statistical Yearbook of Abu Dhabi of 2011, has grown from 1,874.5 million AED since 2005 to 2,442.0 million AED as of 2011. Additionally, the gross output for the chemicals and plastic related products as of 2010 was worth 60,636 million AED (SYAD, 2011).

2 - Scope

This Abu Dhabi Specification recommends the use of particular standards for plastic pipes. It provides information on the QCC Working Group on plastic pipes that recommends the use of BS 6920 standard (Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water) (parts 1, 2, 3 and 4).

3 - Acknowledgements

QCC would like to thank the members of the Working Group listed below.

The membership of the QCC Working Group is as follows:

Name	Entity
1. Robert Lawrence (Chairman)	Gulf Plastic Pipe Academy (GPPA)
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12. Dr.Wail Al-Omari (Coordinator)	Abu Dhabi Quality and Conformity Council (QCC)

4 - REVIEW

4.1 General

The QCC policy is to encourage the use of UAE national standards published by ESMA (the Emirates Authority for Standardization and Metrology). Since there is no UAE standard in this regard, it is proposed that BS 6920 standard will be an effective reference that satisfies the requirements of the Emirate of Abu Dhabi in this field.

4.2 Document Review

4.2.1 BS 6920-1

This part of BS 6920 specifies requirements for the suitability of non-metallic products, which have a direct effect on the quality of both cold and hot water intended for human consumption. These non – metallic products include water fittings and components, pipes and materials used in the coating, protection, lining, jointing, sealing and lubrication of such pipes and fittings.



4.2.2 BS 6920-2.1

This part of BS 6920 describes the method of sampling for testing the suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water.

4.2.3 BS 6920-2.2.1

This part of BS 6920 describes the general method of testing odour & flavor, on non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water.

4.2.4 BS 6920-2.2.2

This part of BS 6920 describes the method of testing odour & flavor imparted to water by hoses and composite pipes and tubes of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water.

4.2.5 BS 6920-2.2.3

This part of BS 6920 describes the method of testing odour & flavor imparted to water by hoses for conveying water for food and drink preparation with regard to their effect on the quality of the water.

4.2.6 BS 6920-2.3

This part of BS 6920 describes the method of test for the appearance of water, which may be affected by non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water.

4.2.7 BS 6920-2.4

This part of BS 6920 describes the method of test for growth of aquatic micro-organisms on non-metallic products for use in contact with water intended for human consumption

With regard to their effect on the quality of the water.

4.2.8 BS 6920-2.5

This part of BS 6920 describes the method of test for extraction of substances that may be of concern to public health, on non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water.

4.2.9 BS 6920-2.6

This part of BS 6920 describes the method of test for extraction of metals, on non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water.

4.2.10 BS 6920-3

This part of BS 6920 describes test methods developed to evaluate the ability of non-metallic products to affect hot and boiling water intended for human consumption. The quality parameters of water (odour, flavour, any noticeable colour or turbidity) in addition to the Leachability of metals from non-metallic products and extraction of such products that may affect public health are also assessed in the methods described in this standard.

4.2.11 BS 6920-4

This part of BS 6920 describes the method of test for GCMS identification of water leachable organic substances, on non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water.

5 - Executive Summary and Recommendations

The QCC Working Group reviewed the ISO standard 4427-1 and the British standard BS 6920 (parts 1, 2, 3 and 4) and found that the BS 6920 is a suitable standard to be used as a reference for non-metallic components with regards to their effect on the quality of water. Due to the absence of national standards (UAE Standard) with this regard; the working group recommends that ESMA (Emirates Authority for Standardization & Metrology) adopts BS 6920 as a national UAE standard.

QCC WG Plastic Pipes is aware of the unique scale of investment and other unique features of Abu Dhabi which could be the subject of particular guidance.

6 - Reviewed Documents

- BS 6920-1:2000

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water-Specification

- BS 6920-2.1:2000 + A32008

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water- Methods of test

- BS 6920-2.2.1: 2000+A2:2008

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water - Methods of test

-BS 6920-2.2.2:2000

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water - Odour and flavour of water

-BS 6920-2.2.3:2000

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of water -Methods of test

-BS 6920-2.3:2000

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water- Methods of test

- BS 6920-2.4:2000

Suitability of non-metallic products for use in contact with water intended for human Consumption with regard to their effect on the quality of water- Methods of test

- BS 6920-2.5:2000

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of water- Methods of test

- BS 6920-2.6:2000

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of water- Methods of test

- BS 6920-3:2000

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water- High temperature tests

- BS 6920-4:2000

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of water -Methods of test

- ISO 4427-1:2007

Plastics piping systems — Polyethylene (PE) pipes and fittings for water supply - Part 1: General

Publisher:

BSI (<http://www.bsigroup.com>)

ISO (<http://www.iso.org>)