DJS 358: 2022 ICS: 87.040

## Draft Jamaican Standard

Specification

for

## The limit of lead content in paints



### **BUREAU OF STANDARDS JAMAICA**

COMMENT PERIOD: 01 APRIL 2022- 30 MAY 2022 Draft Jainaicain Staindard



Jamaican standards are subjected to periodic review. The next amendment will be sent without charge if you cut along the dotted line and return the self-addressed label. If we do not receive this label we have no record that you wish to be kept up-to-date. Our address:

Bureau of Standards Jamaica	
6 Winchester Road	
P.O. Box 113	
Kingston 10	
Jamaica W.I.	
(%cut along t	ne line)
	DJS 358: 2022
NAME OR DESIGNATION	
ADDRESS	

#### **IBS CERTIFICATION MARK PROGRAMME**

The general policies of the JBS Certification Mark Programme are as follows:

- The JBS provides certification services for manufacturers participating in the programme and licensed to use the gazetted JBS Certification Marks to indicate conformity with Jamaican Standards.
- Where feasible, programmes will be developed to meet special requirements of the Submitter
- JBS certification is provided in the interest of maintaining agreed-upon standard requirements. Where applicable, certification may form the basis for acceptance by inspection authorities responsible for enforcement of regulations.
- In performing its functions in accordance with its policies, JBS does not assume or undertake to discharge any responsibility of the manufacturer or any other party.

Participants in the programme should note that in the event of failure to resolve an issue arising from interpretation of requirements, there is a formal appeal procedure.

Further information concerning the details of JBS Certification Mark Programme may be obtained from the Jamaica Bureau of Standards, 6 Winchester Road, Kingston 10.

#### **CERTIFICATION MARKS**





**Product Certification Marks** 



**Plant Certification Mark** 



Certification of Agricultural Produce (CAP) Mark



Jamaica-Made Mark

# Draft Jamaican Standard Specification

For

The limit on lead content in paints

Bureau of Standards Jamaica 6 Winchester Road P.O. Box 113 Kingston 10 JAMAICA, W. I.

Tel: (876) 926 -3140-5/618 - 1534 / 632-4275

Fax: (876) 929 -4736 Website: <u>www.bsj.org.jm</u> E-mail: <u>info@bsj.org.jm</u>

Month 202X

#### ©2022 Bureau of Standards Jamaica

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the Bureau of Standards Jamaica.

#### **ISBN** XXX-XXX-XXX-X

Declared by the Bureau of Standards Jamaica to be a standard specification pursuant to section 7 of the Standards Act 1969.

#### First published

This standard specification was circulated in the draft form for comments under the reference DJS 358: 2022

Jamaican Standards establish requirements in relation to commodities, processes and practices, but do not purport to include all the necessary provisions of a contract.

The attention of those using this standard specification is called to the necessity of complying with any relevant legislation.

#### Amendments

No.	Date of issue	Remarks	Entered by and date

Contents	Page
Foreword	iv
Committee Representation	iv
Acknowledgement	iv
Related Documents	iv
Specifications	
1.Scope	1
2.Terms and Definitions	1
3.Maximum Lead content of paints and varnishes	2
4.General requirement	
5.Pre-Sampling Inspection	2
6.Sampling	2
7.Pre-packaged Paints	2
8.Analysis	3
9.Storage	3
Tables	
1 Number in let to number in cample ratio	2

#### **Foreword**

This standard was developed to provide requirements on the maximum limit of lead content in paints and varnishes, pre-sampling inspection, sampling, pre-packaged paints, analysis and storage use.

The high accumulation of lead consumed is toxic and harmful to public health and the environment. As such, if the limit of lead exceeds 0.009 % or (90  $\mu$ g/mL), it can negatively impact the functions of the human body.

This standard is intended to be compulsory.

#### **Committee Representation**

The preparation of this standard for the Standards Council, established under the Standards Act 1969, was carried out under the supervision of the BSJ's Paint and Surface Coatings Technical Committee which at the time comprised the following members:

#### Acknowledgement

Acknowledgement is made to the International Organization for Standardization (ISO) for the use of material taken from ISO and the Caribbean Community (CARICOM) Regional Organization for Standards and Quality (CROSQ) for the use of the material taken from the Caribbean Community Standard (CCS); the limit on lead in paints.

#### **Related Documents**

This standard makes reference to the following:

Caribbean Community Standard CCS 1995, The limit on lead content in paints

International Organization for Standardization, ISO 15528:2020, Paints, varnishes and raw materials for paints and varnishes — Sampling.

International Organization for Standardization, ISO 1513:2010, Paints and varnishes —Examination and preparation of test samples.

United Nations Environmental Programme UNEP 2018, Model law and guidance for regulating lead paint.

International Organization for Standardization ISO 4618: 2014, Paints and varnishes – Terms and definitions.

## Draft Jamaican Standard Specification for The limit on lead content in paints

#### 1. Scope

This standard provides general requirements for the maximum limit on the lead content in paints and varnishes supplied in fluid and dried form as well as sampling and analysis. These requirements shall be applied for paints and varnishes that are used to include the following but not limited to domestic, industrial and automotive applications.

#### 2. Terms and Definitions

For the purpose of this standard, the following terms and definitions apply:

#### 2.1

#### coating material

product in liquid paste or powdered form that when applied to a substrate forms a layer possessing protective, decorative and or specific properties

#### 2.2

#### fluid paint

paint in fluid form which includes spray paint

#### 2.3

#### importer

any person who undertakes the entry of a product into a country

#### 2.4

#### lead in paint

paint or similar coating material to which one or more lead compounds have been added

#### 2.5

#### manufacturer

any person who undertakes the physical or chemical transformation of substances into a new product, performed either by power-driven machine or by hand and markets it under his/her name or trademark or private label

#### 2.6

#### paint

pigmented coating material which when applied to a substrate, forms an opaque dried film having protective, decorative or specific technical properties

#### 2.7

#### sampling

the act, process or technique of selecting an appropriate number of units which is representative of a lot or batch

#### 2.8

#### total lead content

weight percentage of the total non-volatile portion of the paint or as a percentage of the weight of the dried paint film

#### 2.9

#### varnish

coating material that is converted to a transparent solid film after application as thinner layer

#### 3. Maximum Lead content of paints and varnishes

3.1 The maximum limit of lead content of paints or varnishes shall be 0.009 % (90  $\mu$ g/mL) by weight, calculated on the basis of the total solids (non-volatile) content.

#### 4. General requirement

**4.1** Sampling, labelling and storage of samples and the preparation of the associated documentation shall be carried out by skilled personnel.

#### 5. Pre-Sampling Inspection

**5.1** Before sampling is carried out, the material, the container and the sampling point shall be inspected for abnormalities. If any abnormalities are observed, they shall be recorded.

#### 6. Sampling

- **6.1** Sampling of paints or varnishes in fluid and dried form shall comply with the following:
  - a) The product shall be homogenous before taking a sample.
  - b) A sample of paint or varnish shall be removed from the surface using specific techniques that will not contaminate the sample with substrate material.
  - c) A sampler shall ensure appropriate precautionary measures are taken when handling paints or varnishes.
  - d) All containers shall be fitted with tight closures that are not affected by the sample.

#### 7. Pre-packaged Paints

- **7.1** The distribution for pre-packaged paints shall comply with the following:
  - 1. Paints should be identified through their batch/lot number and separated accordingly.
  - 2. The number of units in a lot/batch shall determine the number of samples taken as outlined in the table below.

Table 1. Number in lot to number in sample ratio

Number in lot, N	Number in sample, n
2 - 10	2
11 - 20	3
21 - 35	4
36 - 50	5
51 - 70	6

Number in lot, N	Number in sample, n
71 - 90	7
91 - 125	8
126 - 160	9
161 - 200	10
over 200	10 + 1 for every additional 50

- 3. No damaged or open containers shall be included in the sample.
- 4. Each paint container shall be opened and examined for:
  - a) Presence of any surface skin (if any, remove it before proceeding);
  - b) Presence of any foreign matter; (if observed do not proceed);
  - c) Any separation of phases (liquid from solid);
  - d) Consistency, that is, if the paint has gelled (a thixotropic paint may appear to be gelled, but its consistency becomes more fluid on shaking or stirring);
  - e) If the product is a varnish, its clarity and colour should be noted; and
  - f) Settling, (do not proceed if hard or dry).

#### 8. Analysis

**8.1** All paints imported or manufactured shall use the approved applicable test method(s) for limits of lead to ensure that it satisfies the 0.009 % or  $(90 \mu g/mL)$  requirements.

#### 9. Storage

**9.1** The storage sample shall be stored under suitable storage conditions in an airtight container or as specified by manufacturers.

#### **Standards Council**

The Standards Council is the controlling body of the Bureau of Standards Jamaica and is responsible for the policy and general administration of the Bureau.

The Council is appointed by the Minister in the manner provided for in the Standards Act, 1969. Using its powers in the Standards Act, the Council appoints committees for specified purposes.

The Standards Act, 1969 sets out the duties of the Council and the steps to be followed for the formulation of a standard.

#### Preparation of standards documents

The following is an outline of the procedure which must be followed in the preparation of documents:

- 1. The preparation of standards documents is undertaken upon the Standard Council's authorisation. This may arise out of representation from national organisations or existing Bureau of Standards' Committees of Bureau staff. If the project is approved it is referred to the appropriate sectional committee or if none exists a new committee is formed, or the project is allotted to the Bureau's staff.
- 2. If necessary, when the final draft of a standard is ready, the Council authorises an approach to the Minister in order to obtain the formal concurrence of any other Minister who may be responsible for any area which the standard may affect.
- 3. The draft document is made available to the general public for comments. All interested parties, by means of a notice in the Press, are invited to comment. In addition, copies are forwarded to those known, interested in the subject.
- 4. The Committee considers all the comments received and recommends a final document to the Standards Council
- 5. The Standards Council recommends the document to the Minister for publication.
- 6. The Minister approves the recommendation of the Standards Council.
- 7. The declaration of the standard is gazetted and copies placed on sale.
- 8. On the recommendation of the Standards Council the Minister may declare a standard compulsory.
- 9. Amendments to and revisions of standards normally require the same procedure as is applied to the preparation of the original standard.

#### Overseas standards documents

The Bureau of Standards Jamaica maintains a reference library which includes the standards of many overseas standards organisations. These standards can be inspected upon request.

The Bureau can supply on demand copies of standards produced by some national standards bodies and is the agency for the sale of standards produced by the International Organization for Standardization (ISO) members.

Application to use the reference library and to purchase Jamaican and other standards documents should be addressed to:

Bureau of Standards Jamaica 6 Winchester Road P.O. Box 113, Kingston 10 JAMAICA, W. I.