

SPECIFICATION FOR BLEACHED LAC

THIS BRITISH STANDARD, having been approved by the Pigments, Paints and Varnishes Industry Standards Committee and endorsed by the Chairman of the Chemical Divisional Council, was published under the authority of the General Council on 31st October, 1960.

First published, 1946.

First revision, 1960.

The Institution desires to call attention to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

In order to keep abreast of progress in the industries concerned, British Standards are subject to periodical review. Suggestions for improvements will be recorded and in due course brought to the notice of the committees charged with the revision of the standards to which they refer.

A complete list of British Standards, numbering over 3000, indexed and cross-indexed for reference, together with an abstract of each standard, will be found in the Institution's Yearbook, price 15s.

This standard makes reference to the following British Standards:

B.S. 410 Test sieves.

B.S. 1957 Presentation of numerical values (fineness of expression; rounding of numbers).

British Standards are revised, when necessary, by the issue either of amendment slips or of revised editions. It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.

The following B.S.I. references relate to the work on this standard:
Committee reference PVC/4 Draft for comment A(PVC) 3700

Amendment No. 1
published and effective from 28 June 1991
to BS 1284 : 1960

Specification for bleached lac

Revised text

Appendix F. Methods for the determination of wax
Method 2. For transparent or wax-free bleached lac

Procedure

In line 6, delete 'an asbestos mat' and substitute 'any type of glass wool'.

In line 9, delete 'the asbestos mat' and substitute 'the glass wool'.

In line 10, delete 'the mat' and substitute 'the glass wool'.

CONTENTS

	Page
Co-operating organizations	5
Foreword	6

SPECIFICATION

MANDATORY CLAUSES

1. Scope	6
2. Definition	6
3. Appearance and colour	7
4. Sample	7
5. Volatile matter	7
6. Matter insoluble in hot alcohol	7
7. Matter soluble in water	7
8. Ash	8
9. Wax	8
10. Copals	8
11. Rosin	8
12. Free chlorine	8
13. Expression of analytical results	8

OPTIONAL CLAUSES

14. Colour index	9
15. Non-volatile matter soluble in cold alcohol	9
16. Acid value	9
17. Free mineral acid	9
18. Total chlorine	9
19. Arsenic	10
20. Lead	10

APPENDICES

A. Sampling	10
B. Method for the determination of volatile matter	11
C. Method for the determination of matter insoluble in hot alcohol	12
D. Method for the determination of matter soluble in water	16
E. Method for the determination of ash	16

	Page
F. Methods for the determination of wax	17
G. Method for the detection of copals	19
H. Method for the detection of rosin (Halphen-Hicks)	19
I. Method for the detection of free chlorine	20
J. Method for the determination of colour index	20
K. Method for the determination of non-volatile matter soluble in cold alcohol	21
L. Method for the determination of acid value	22
M. Method for the determination of free mineral acid	23
N. Method for the determination of total chlorine	24
O. Method for the determination of arsenic	25
P. Methods for the determination of lead	29

CO-OPERATING ORGANIZATIONS

The Pigments, Paints and Varnishes Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- Admiralty
- Air Ministry
- Association of British Chemical Manufacturers
- *Board of Trade
- British Colour Makers' Association
- British Railways, The British Transport Commission
- Building Industry Distributors
- Crown Agents for Oversea Governments and Administrations
- D.S.I.R.—Building Research Station
- *D.S.I.R.—Laboratory of the Government Chemist
- Incorporated Institute of British Decorators
- Lead Oxide Convention
- London County Council
- *Ministry of Aviation
- Ministry of Works
- National Paint Federation
- *Oil and Colour Chemists' Association
- Paint Manufacturers' and Allied Trades Association
- Post Office
- Research Association of British Paint, Colour and Varnish Manufacturers
- Royal Institute of British Architects
- *Society of British Paint Manufacturers Ltd.
- Titanium Pigment Manufacturers' Technical Committee
- White Lead Convention
- Zinc Development Association
- Zinc Pigment Development Association

The Government departments and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the Committee entrusted with the preparation of this British Standard:

- British Electrical and Allied Industries Research Association
- British Electrical and Allied Manufacturers Association
- British Hat and Allied Feltmakers Research Association
- London Chamber of Commerce, Incorp.
- London Shellac Trade Association
- Society for Analytical Chemistry
- Tropical Products Institute
- Individual manufacturers

BRITISH STANDARD SPECIFICATION FOR BLEACHED LAC

FOREWORD

During recent years, lac has been studied internationally through the International Organization for Standardization (ISO), by various Research Institutions and Trade Organizations in different parts of the world.

This revised edition of the British Standard for bleached lac has accordingly been prepared to take into account the work done at the ISO level, and the Committee responsible for the preparation of this revision desires to acknowledge its indebtedness to the sources of information thus utilized.

The mandatory requirements included in this specification are those for appearance and colour, volatile matter, matter insoluble in hot alcohol, matter soluble in water, ash, wax, absence of free chlorine, absence of rosin and absence of copals, and methods of test are given for these. Also included are optional clauses and methods of test, operative only by agreement between purchaser and vendor, for colour in solution and colour index, non-volatile matter soluble in cold alcohol, chlorine content, free mineral acids, acid value, arsenic and lead.

It will be noted that no specific requirement is given for the absence of visible impurities. This is considered to be covered by the requirements of Clauses 3 and 6.

SPECIFICATION

MANDATORY CLAUSES

SCOPE

1. This British Standard specifies requirements for two types of bleached lac, (a) cloudy or waxy ('regular') and (b) transparent or wax-free ('refined') and provision is made for supply in three conditions: (a) bone-dry, (b) air-dry (nominally containing about 12 per cent volatile matter and (c) wet (nominally containing about 25 per cent volatile matter).

DEFINITION

2. For the purpose of this British Standard bleached lac is defined as the product obtained by subjecting seedlac or shellac in solution to a process of bleaching, and then recovering the product in a solid form.

APPEARANCE AND COLOUR

3. The appearance and colour of the material shall be not inferior to those of an agreed sample, when judged by visual examination.

SAMPLE

4. For the purpose of examination under this specification samples shall be drawn, parted, and prepared in the manner described in Appendix A. Only original unopened packages of shellac shall be sampled.

Not less than 10 per cent of the packages, selected at random from each lot of not more than 200 packages, shall be sampled.

VOLATILE MATTER

5. *a. Bone-dry material.* The material shall not yield more than 6.0 per cent by weight of volatile matter when tested in the manner described in Appendix B.

b. Air-dry material and c, wet material. The material shall not yield volatile matter in excess of the figure agreed between purchaser and vendor, when tested in the manner described in Appendix B.

MATTER INSOLUBLE IN HOT ALCOHOL

6. The material shall not contain more than the following amounts of matter insoluble in hot alcohol, determined, and calculated on a moisture-free basis in the manner described in Appendix C:

Type	Limit
	per cent by weight
Cloudy or waxy	1.1
Transparent or wax-free	0.2

MATTER SOLUBLE IN WATER

7. The material shall not contain more than the following amounts of matter soluble in water, determined and calculated on a moisture-free basis in the manner described in Appendix D:

Type	Limit
	per cent by weight
Cloudy or waxy	1.0
Transparent or wax-free	0.3

ASH

8. The material shall not leave more than the following amounts of ash, calculated on a moisture-free basis, when tested in the manner described in Appendix E:

Type	Limit
	per cent by weight
Cloudy or waxy	1.0
Transparent or wax-free	0.5

WAX

9. The material shall not contain more than the following amounts of wax, determined and calculated on a moisture-free basis in the manner described in Appendix F:

Type	Limit
	per cent by weight
Cloudy or waxy	5.5
Transparent or wax-free	0.2

COPALS

10. The material shall not show the presence of any copals when tested in the manner described in Appendix G.

ROSIN

11. The material shall not show the presence of any rosin when tested in the manner described in Appendix H.

FREE CHLORINE

12. The aqueous extract of the material shall not show the presence of free chlorine, when tested in the manner described in Appendix I.

EXPRESSION OF ANALYTICAL RESULTS

13. The results of analyses performed in accordance with the appendices to this standard shall be expressed to the number of significant figures indicated

in the specification requirements. The principles embodied in B.S. 1957, 'Presentation of numerical values (finesness of expression; rounding of numbers)', apply to such results.

OPTIONAL CLAUSES

COLOUR INDEX

14. When agreed between purchaser and vendor, the colour index of the material, determined in the manner described in Appendix J, shall not exceed an agreed limit.

NON-VOLATILE MATTER SOLUBLE IN COLD ALCOHOL

15. When agreed between purchaser and vendor, the material shall not contain less than the following amounts of non-volatile matter soluble in cold alcohol when determined, and calculated on a moisture-free basis, in the manner described in Appendix K:

Type	Limit
	per cent by weight
Cloudy or waxy	92.0
Transparent or wax-free	97.0

ACID VALUE

16. When agreed between purchaser and vendor, the acid value of the material, determined, and calculated on a moisture-free basis, in the manner described in Appendix L, shall be in the range 65 to 90, or such other range as may be agreed upon.

FREE MINERAL ACID

17. When agreed between purchaser and vendor, the material shall not contain more than 0.2 per cent by weight, or such other quantity as may be agreed of free mineral acid, when calculated, on a moisture-free basis, as sulphuric acid, H_2SO_4 , and determined in the manner described in Appendix M.

TOTAL CHLORINE

18. When agreed between purchaser and vendor, the total chlorine content of the material shall not exceed an agreed percentage by weight, when calculated,