NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

N11357

NLI 111583

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

SPECIFICATIONS
for the use of
WHITE-LEAD PAINT

We acknowledge the assistance of the American Institute of Architects in criticising the subject matter and form of presentation of this publication.

National Lead Company

00059

NLI 111584

INDEX

SECTION	PAGE
Section A—Preparation and General Requirements	1
Section B—Materials and Mixings	4
Section C—Application of the Paint	17
Supplement—A.S.T.M. and Government Specifications	21

SUBJECT	PAGE
Alterations	1
Brush, Formulas	18, 21
Cleaning	3
Colors	3
Concrete, Formulas	3
Drawings	15, 21
Dryer	1
Flatting Oil	4, 17
Floors, Concrete, Formulas	4
Floors, Wood, Formulas	17, 20
Glazing	21, 19
Inside Wood, Repainting, Formulas	1
Inside Wood, New, Formulas	6, 19
Linseed Oil, Boiled	7, 18
Linseed Oil, Raw	4, 25
Materials	4, 24
Metal, Interior, Formulas	2, 4
Mixing	24, 19
Outside Wood, New, Formulas	3
Outside Wood, Repainting, Formulas	6, 18
Plaster, Interior, Formulas	7, 18
Preparation of Surface	22, 19
Putty	2, 3
Shellac Varnish	2, 5
Stains, Formulas	5
Storage	15, 20
Stucco, Formulas	1
Tinting	22, 20
Turpentine	3
Varnish	4, 26
Wall Primer	3
White Lead	4
Wood Floors, Formulas	4, 22
Wood, New Inside, Formulas	21, 19
Wood, New Outside, Formulas	7, 18
Wood, Repainting Inside, Formulas	6, 18
Wood, Repainting Outside, Formulas	9, 19
Work Included	7, 18
Workmanship	1

Instructions

Unusual care has been taken in preparing these specifications to make them complete, absolutely reliable and in the most useful form possible.

The specifications are based on approved modern painting practice, and are authoritative in every detail. They should be followed implicitly by the painting contractor, therefore, to obtain the best possible results.

It will be necessary, of course, in specifications to the painting contractor to include only those paragraphs of our specifications that cover the exact work to be done. For the user's convenience we have employed letters and numerals to designate the sections, their main divisions and the paragraphs of the latter.

If desired, detail of work to be done as outlined in Section C is the only part which need be written out in full. The details of materials and workmanship may then be covered by the following clause:

All painting work under this contract, except as hereinafter specified, shall be executed in strict conformity with the Specifications of National Lead Company, which Specifications are hereby declared and made part of this specification, with the same force and effect as if written herein in full.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111585

Work, New Outside, Paintable 7, 12
Work, Repainting Inside, Paintable 8, 12
Work, Repainting Outside, Paintable 9, 12
Work Included 5
Workmanship 8

SECTION A

Preparation and General Requirements

1. MATERIALS:

All materials used for the work shall be as described under "Section B" of the "Specifications for the use of White-Lead Paint."

The following materials are covered in these specifications: white-lead, color-lead, raw linseed oil, boiled linseed oil, turps, oil, varnish, putty, turpentine, driers, varnish, shellac varnish and pumice.

2. DRAWINGS:

The painting contractor shall be furnished with all drawings, details and other information necessary for the painting of all classes of work which are to receive a painted finish.

3. GENERAL CONDITIONS:

The General Conditions of the American Institute of Architects, latest edition, shall form a part of these specifications, and all work shall be subject to the provisions thereof, in so far as they apply to work under these specifications.

4. WORK INCLUDED:

(a) The painting contractor shall provide all labor, material, tools, staging and equipment necessary and shall perform all painting and finishing work in connection with the building, both exterior and interior, unless otherwise specified.

(b) (Here describe generally the work which is to be painted.)

(c) (Here also describe work which is to be primed under other specifications, but which shall be finished under these specifications.)

5. ALTERATIONS AND REMODELING:

All present work that is removed and reset, or that is affected in any way by the alterations and remodeling, shall be refinished to match the finished surfaces adjacent thereto.

6. STORAGE:

The painting contractor shall store his materials in one place in the building, and such storage place shall be kept neat and clean and all damage thereto or to his surroundings shall be made good, care being taken in the storage of paints, oils, etc., to prevent all danger of fire. Oily rags shall be removed from the building every day upon the stopping of work.

7. WORKMANSHIP:

(a) Before any painting is done, all surfaces shall be clean, smooth and free from dust, dirt, grease, mortar, etc.

(b) All paint shall be evenly spread and thoroughly brushed out.

(c) On new wood, after priming, knots and sappy streaks shall receive one coat of shellac varnish brushed out thin.

(d) No coat of paint shall be applied on wet or damp surfaces, and in no case until preceding coat is dry and hard.

(e) No painting shall be done on outside work in extremely cold, frosty, foggy or damp weather. Painting done in winter weather shall be done only when the temperature is above 50° F. and when all surfaces are dry.

(f) All exterior painting work shall be allowed to dry from two to four days before the next coat is applied and on interior work at least twenty-four hours shall be allowed between coats.

8. SAMPLES:

Samples of all finishes shall be submitted to the architect for approval before applying, and finished work shall match same.

9. PUTTYING:

(a) All knot holes, dents, cracks, joints or other defects in the surface shall be puttied up and smoothed over with a putty knife.

(b) Puttying on new work shall be done after the priming coat has been applied and is thoroughly dry.

(c) Puttying on repainted work shall be done after the first coat has been applied and is thoroughly dry.

10. STIPPLING:

Where a stippled finish is specified on interior walls or ceilings, the finishing coat of paint, before it has completely set up shall be tamped evenly, with a suitable stippling brush, to provide a uniform finish.

11. PREPARATION OF WOODWORK SURFACES:

(a) New woodwork shall be cut smooth with sandpaper where required and dusted clean before priming.

(b) From old woodwork which has been painted before, all loose paint, scale, dirt and dust shall be entirely removed. All parts where liquid paint remover has been used shall be washed off with benzine or turpentine.

(c) The painting contractor shall carefully inspect each surface before applying any finish and if same is not in proper condition, he shall notify the architect in writing; otherwise the contractor will be held responsible for any defects in the finish arising therefrom.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111586

12. PREPARATION OF PLASTER SURFACES:

(a) Before any paint is applied, plaster surfaces, either new or old, shall be made clean and smooth.

(b) All cracks and holes shall be filled with plaster of paris or approved patching plaster. Large cracks, before filling, shall be opened up to dovetail shape clear to the lath and soaked with water. The filling plaster shall be leveled off even with the adjoining plaster surfaces, and when dry shall be sandpapered smooth.

(c) Walls that have been calcimined shall be washed until all calcimine is removed before applying any paint.

(d) Where new plaster is to be painted to the property equal, the surfaces shall be treated with a solution made by dissolving two pounds of zinc sulphate in one gallon of water. After the zinc sulphate solution has been applied, sufficient time shall be allowed for the plaster to dry before priming.

13. PREPARATION OF METAL SURFACES:

All metal surfaces before painting shall be cleaned of grease, dirt, loose rust, loose scale and loose paint.

14. PREPARATION OF BRICK AND STONE SURFACES:

(a) New brick work shall not be primed until dry and at least two or three days of dry weather shall precede painting.

(b) If any mortar has become loose or damaged, all such places shall be pointed with mortar before paint is applied.

(c) After priming, small defects in the surface shall be covered with putty.

15. PREPARATION OF STUCCO AND CONCRETE SURFACES:

Stucco or concrete shall be allowed to stand and dry at least six months before paint is applied. If necessary to paint before then, it shall be treated with a solution made by dissolving two pounds of zinc sulphate in one gallon of water. After the zinc sulphate solution has been applied, sufficient time shall be allowed for the stucco or concrete to dry before priming.

16. CLEANING:

Upon completion of the building, the painting contractor shall remove all paint spots from all finished work; and shall leave the entire premises free from rubbish caused by his work, and shall remove his equipment from the premises. He shall present the work clean and free from blemish.

Working sheet to be furnished to be included in this specification. If the solution below is to be included, be sure to quadruple amounts.

SECTION B

Materials and Mixings

17. MATERIALS:

(a) All materials for painting shall be delivered at the building in unbroken packages, bearing the manufacturer's brand and name, and shall be used without adulteration.

The following materials are covered in these specifications: White-lead, colors in oil, raw linseed oil, boiled linseed oil, flatting oil, wall primer, turpentine, drier, varnish, shellac varnish and putty.

(b) *White-Lead:*

All white-lead shall be pure white-lead of Dutch Boy or Carter brand or their equal, and shall conform to the specifications of the American Society for Testing Materials.

A. S. T. M. specifications for white-lead will be found on pages 22 and 23.

(c) *Colors in Oil:*

All colors in oil shall be of Dutch Boy brand or its equal.

(d) *Raw Linseed Oil:*

All raw linseed oil shall be pure settled oil of Dutch Boy brand or its equal, and shall conform to the specifications of the American Society for Testing Materials.

A. S. T. M. specifications for raw linseed oil will be found on page 24.

(e) *Boiled Linseed Oil:*

All boiled linseed oil shall be pure boiled linseed oil of Dutch Boy brand or its equal, and shall conform to the specifications of the American Society for Testing Materials.

A. S. T. M. specifications for boiled linseed oil will be found on page 25.

(f) *Flatting Oil:*

All flatting oil shall be Dutch Boy flatting oil.

(g) *Wall Primer:*

All wall primer shall be Dutch Boy wall primer.

(h) *Turpentine:*

All turpentine shall be of the best grade of pure turpentine and shall conform to the specifications of the American Society for Testing Materials.

A. S. T. M. specifications for turpentine will be found on page 26.

(i) *Drier:*

All drier used shall be of Dutch Boy brand or its equal, and shall conform to Type I of the Federal Specification for liquid paint drier.

Commercial specifications for liquid paint drier will be found on page 27. Drier is added to paint to accelerate oxidation and promote hardening of the film. A film of white lead and pure raw linseed oil will dry and harden without drier in about three days but the presence of dust and vermin makes it generally desirable for paint to set up a skin or harden in eight or ten hours therefore, drier is necessary. The quantity used should be regulated in the proportions stated under the varnish formulas in Section B, paragraph 21. A small excess of drier is not harmful and under paint drying rapidly gives a satisfactory durability but great excess of drier should be avoided.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document before filmed

00059

Upon completion of the building, the painting contractor shall remove all paint spots from all finished work; and shall leave the entire premises free from rubbish caused by his work; and shall remove his equipment from the premises. He shall present the work clean and free from blemish.

Painting work is not included in this specification. If the contractor wishes it to be included, he should specify, section B.

the Federal Specification for liquid paint drier.

Concentrate specifications for liquid paint drier will be found on page 17. Drier is added to paint to accelerate oxidation and resulting hardening of the film. A film of white lead and pure raw linseed oil will dry and harden without drier in places where air is in the presence of the oil in equal amounts and it is given a minimum four years to set up and harden to right or the lowest the robers, drier is necessary. The paint also need should be produced in the pure paintness treated under this colour hours dry during periods. Drier in accordance desirable has given excess of drier should be avoided.

(j) *Varnish*

All varnish shall be the best grade of floor varnish, the product of an approved manufacturer and suitable for mixing with white-lead as specified.

(k) *Shellac Varnish*

All shellac varnish shall be free from resin and shall be composed of a pure gum shellac cut in pure denatured alcohol, using 4 pounds of gum to one gallon of alcohol.

(l) *Putty*

Putty shall be composed of pure white-lead and whiting, mixed with pure linseed oil to proper consistency, and shall contain not less than ten per cent white-lead, conforming to white-lead-whiting putty of the specifications of the American Society for Testing Materials. For metal molds the pigment content may include ten per cent of powdered litharge.

A. S. T. M. specifications for putty will be found on pages 20 and 21.

18. TINTING:

(a) When the paint is to be tinted, pure robers-in-oil of Dutch Boy brand or its equal, shall be used.

(b) The various colors, tints, or shades desired shall be in accordance with special directions as given hereinafter.

These standard formulas for yellow robe or specific colors which must be accurate specific for only low work (required in the place provided for also pure paint on features C. In all shellac formula a colling for low, a minimum of shellac robers, in the robers-in-oil or pure robe specific specific of drying oil or impurities to avoid changing the consistency of the paint.

19. GLAZING:

Wherever glaze is to be used it shall be Dutch Boy flatting oil, to which have been added the robers-in-oil required to produce the effects called for in the special directions given hereinafter.

20. MIXING:

All white-lead paint shall be mixed at the job in a manner to ensure the proper incorporation of the ingredients, and in conformity with formulas as given hereinafter.

21. FORMULAS:

(a) The following formulas are for white paint, and take no account of tinting or coloring materials. Where tints or colors are required they shall be in accordance with the special descriptions as given hereinafter.

The formulas are divided into three different classes for each exterior and interior surfaces and structures and interior woodwork, plaster, kalsomine and calcimine, metal, stucco, concrete and brick. A formula marked with an asterisk (*) is one where equal to 25 pounds Dutch Boy flatting oil.

21. (b) *Painting New Outside Wood*

FORMULA NO. 1

Priming Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
4 gallons pure linseed oil.	4 gallons pure linseed oil.
1½ gallons pure turpentine.	1 gallons pure turpentine.
†1 pint pure drier.	†1 pint pure drier.
Above formula makes 9 gallons of paint, which should cover about 2,300 square feet, one coat.	Above formula makes 9 gallons of paint, which should cover about 2,300 square feet, one coat.

FORMULA NO. 2

Second Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1½ gallons pure linseed oil.	1½ gallons pure linseed oil.
1½ gallons pure turpentine.	1½ gallons pure turpentine.
†1 pint pure drier.	†1 pint pure drier.
(If the paint wanted is thinnish, increase the linseed oil by ½ gallon and decrease the turpentine by ½ gallon.)	(If the paint wanted is thinnish, increase the linseed oil by ½ gallon and decrease the turpentine by ½ gallon.)
Above formula makes 8 gallons of paint, which should cover about 4,000 square feet, one coat.	Above formula makes 8 gallons of paint, which should cover about 4,000 square feet, one coat.

FORMULA NO. 3

Third Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
3 gallons pure linseed oil.	3 gallons pure linseed oil.
†1 pint pure drier.	1 quart pure turpentine.
	†1 pint pure drier.
(Under conditions of relatively high humidity, better results will be obtained by reducing the linseed oil content by ½ gallon and increasing the turpentine by 1 pint.)	(Under conditions of relatively high humidity, better results will be obtained by reducing the linseed oil content by ½ gallon and increasing the turpentine by 1 pint.)
Above formula makes 6½ gallons of paint, which should cover about 4,000 square feet, one coat.	Above formula makes 6½ gallons of paint, which should cover about 4,000 square feet, one coat.

† When linted oil is used, it may drop to ½ pint.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111588

21. (c) *Repainting Outside Wood*

FORMULA No. 6

First Coat

100 pounds Dutch Bay or Carter *soft paste* white-lead.	100 pounds Dutch Bay or Carter *heavy paste* white-lead.
3 gallons pure linseed oil.	3 gallons pure linseed oil.
1¾ gallons pure turpentine.	2 gallons pure turpentine.
½ pint pure drier.	½ pint pure drier.
Above formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat.	Above formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat.

FORMULA No. 6

Second Coat

100 pounds Dutch Bay or Carter *soft paste* white-lead.	100 pounds Dutch Bay or Carter *heavy paste* white-lead.
3 gallons pure linseed oil.	3 gallons pure linseed oil.
½ pint pure drier.	1 quart pure turpentine.
	½ pint pure drier.
If better consistency of paint is desired, it may be obtained by reducing the linseed oil content to 2½ gallons and increasing the turpentine by 1 pint.)	If better consistency of paint is desired, it may be obtained by reducing the linseed oil content to 2½ gallons and increasing the turpentine by 1 pint.)
Above formula makes 5½ gallons of paint which should cover about 4,500 square feet, one coat.	Above formula makes 5½ gallons of paint which should cover about 4,500 square feet, one coat.

21. (d) *Painting New Inside Wood*

FORMULA No. 6

Priming Coat

100 pounds Dutch Bay or Carter *soft paste* white-lead.	100 pounds Dutch Bay or Carter *heavy paste* white-lead.
3 gallons pure linseed oil.	3 gallons pure linseed oil.
1¾ gallons Dutch Bay flatting oil.	3 gallons Dutch Bay flatting oil.
1 pint pure drier.	1 pint pure drier.
{*or*}	{*or*}
*100 pounds Dutch Bay or Carter *soft paste* white-lead.	*100 pounds Dutch Bay or Carter *heavy paste* white-lead.
3 gallons pure raw linseed oil.	3 gallons pure raw linseed oil.
1¾ gallons pure turpentine.	3 gallons pure turpentine.
1 pint pure drier.	1 pint pure drier.
The foregoing oil formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat. The corresponding formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat.	The foregoing oil formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat. The corresponding formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat.

*See note below.

Where linseed oil is used, reduce turpentine to 2½ gallons.

21. (d) *Painting New Inside Wood*—Continued:

FORMULA No. 7

Second Coat

100 pounds Dutch Bay or Carter *soft paste* white-lead.	100 pounds Dutch Bay or Carter *heavy paste* white-lead.
1¾ gallons Dutch Bay flatting oil.	2 gallons Dutch Bay flatting oil.
{*or*}	{*or*}
*100 pounds Dutch Bay or Carter *soft paste* white-lead.	*100 pounds Dutch Bay or Carter *heavy paste* white-lead.
1¾ gallons pure turpentine.	2 gallons pure turpentine.
½ pint pure drier.	½ pint pure drier.
The foregoing oil formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat. The corresponding formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat.	The foregoing oil formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat. The corresponding formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat.

FORMULA No. 8

Third Coat—Flat Finish

100 pounds Dutch Bay or Carter *soft paste* white-lead.	100 pounds Dutch Bay or Carter *heavy paste* white-lead.
1¾ gallons Dutch Bay flatting oil.	1 gallons Dutch Bay flatting oil.
{*or*}	{*or*}
*100 pounds Dutch Bay or Carter *soft paste* white-lead.	*100 pounds Dutch Bay or Carter *heavy paste* white-lead.
1¾ gallons pure turpentine.	1 gallons pure turpentine.
1 pint flour varnish.	1 pint flour varnish.
½ pint pure drier.	½ pint pure drier.
The foregoing oil formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat. The corresponding formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat.	The foregoing oil formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat. The corresponding formula makes 5 gallons of paint which should cover about 4,500 square feet, one coat.

*See note under 21 (c)

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111589

81. (c) *Repainting Inside Wood—Continued*

FORMULA NO. 9

Third Coat—Egg-Shell Gloss Finish

100 pounds Dutch Boy or Carter *soft paste* white-lead.
1½ gallons Dutch Boy flatting oil.
8 gallons Dutch Boy wall primer.

{ or }

*100 pounds Dutch Boy or Carter *soft paste* white-lead.
½ gallon pure turpentine.
1½ gallons floor varnish.
½ pint pure drier.

100 pounds Dutch Boy or Carter *heavy paste* white-lead.
2 gallons Dutch Boy flatting oil.
8 gallons Dutch Boy wall primer.

{ or }

*100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1 gallon pure turpentine.
1½ gallons floor varnish.
½ pint pure drier.

FORMULA NO. 10

Third Coat

Semi-Gloss Finish

The following formula shall be used for white or light colors:

3 pounds Dutch Boy or Carter *heavy paste or soft paste* white-lead.
1 gallon floor varnish.

(The [illegible] coat shall be tint mixed with [illegible] in the proportion [illegible] of paint and delivered in [illegible] containers. The proportion [illegible] shall be the same as for the [illegible] white-lead.)

Formula No. 10 makes one gallon of paint which should cover about 900 square feet, one coat.

81. (e) *Repainting Inside Wood*

FORMULA NO. 11

First Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.
1½ gallons Dutch Boy flatting oil.

{ or }

*100 pounds Dutch Boy or Carter *soft paste* white-lead.
1½ gallons pure turpentine.
½ pint pure drier.

100 pounds Dutch Boy or Carter *heavy paste* white-lead.
2 gallons Dutch Boy flatting oil.

{ or }

*100 pounds Dutch Boy or Carter *heavy paste* white-lead.
2 gallons pure turpentine.
½ pint pure drier.

The flatting oil formula makes 1 gallon of paint which should cover about 4,500 square feet, one coat. The turpentine formula makes 1 gallon of paint which should cover about 4,000 square feet, one coat.

*Use one order or tab.

81. (e) *Repainting Inside Wood—Continued*

FORMULA NO. 12

Second Coat

Flat Finish

100 pounds Dutch Boy or Carter *soft paste* white-lead.
1½ gallons Dutch Boy flatting oil.

{ or }

*100 pounds Dutch Boy or Carter *soft paste* white-lead.
1½ gallons pure turpentine.
1 pint floor varnish.
½ pint pure drier.

100 pounds Dutch Boy or Carter *heavy paste* white-lead.
2 gallons Dutch Boy flatting oil.

{ or }

*100 pounds Dutch Boy or Carter *heavy paste* white-lead.
2 gallons pure turpentine.
1 pint floor varnish.
½ pint pure drier.

The flatting oil formula makes 1 gallon of paint which should cover about 4,500 square feet, one coat. The turpentine formula makes 1 gallon of paint which should cover about 4,000 square feet, one coat.

FORMULA NO. 13

Second Coat

Egg-Shell Gloss Finish

100 pounds Dutch Boy or Carter *soft paste* white-lead.
1½ gallons Dutch Boy flatting oil.
8 gallons Dutch Boy wall primer.

{ or }

*100 pounds Dutch Boy or Carter *soft paste* white-lead.
½ gallon pure turpentine.
1½ gallons floor varnish.
½ pint pure drier.

100 pounds Dutch Boy or Carter *heavy paste* white-lead.
2 gallons Dutch Boy flatting oil.
8 gallons Dutch Boy wall primer.

{ or }

*100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1 gallon pure turpentine.
1½ gallons floor varnish.
½ pint pure drier.

The flatting oil formula makes 1½ gallons of paint which should cover about 1,[illegible] square feet, one coat. The turpentine formula makes 1½ gallons of paint which should cover about 1,[illegible] square feet, one coat.

*Use one order or tab.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111590

21. (e) *Repainting Inside Wood*—Continued:

FORMULA NO. 14
Second Coat
Second Finish

The following formula shall be used for white or light colors:

3 pounds Dutch Boy or Carter *heavy paste* or *soft paste* white-lead.
1 gallon floor varnish.

(The white-lead used shall be first mixed with turpentine to the consistency of 1 pounds to 1 pint and thinned or mixed separately. The varnish shall then be thinned and the varnish added to the white-lead.)

Formula No. 14 covers one gallon of paint, which should cover about 10[illegible] square feet, one coat.

21. (f) *Painting Wood Floors*

FORMULA NO. 15
Priming Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
3 gallons pure linseed oil.	3 gallons pure linseed oil.
1¼ gallons pure turpentine.	1 gallons pure turpentine.
½ pint pure drier.	½ pint pure drier.
Above formula makes 5 gallons of paint, which should cover about 4,[illegible] square feet, one coat.	Above formula makes 5 gallons of paint, which should cover about 4,[illegible] square feet, one coat.

FORMULA NO. 16
Second Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
½ gallon pure linseed oil.	½ gallon pure linseed oil.
1¼ gallons pure turpentine.	1¼ gallons pure turpentine.
½ pint pure drier.	½ pint pure drier.
Above formula makes 5 gallons of paint, which should cover about 4,[illegible] square feet, one coat.	Above formula makes 5 gallons of paint, which should cover about 4,[illegible] square feet, one coat.

FORMULA NO. 17
Third Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
½ gallon pure linseed oil.	½ gallon pure linseed oil.
½ gallon pure turpentine.	1 gallon pure turpentine.
1 gallon floor varnish.	1 gallon floor varnish.
½ pint pure drier.	½ pint pure drier.
(For panels floors a varnish should be used that will withstand outside exposure.)	(For panels floors a varnish should be used that will withstand outside exposure.)
Above formula makes 1½ gallons of paint, which should cover about 4,[illegible] square feet, one coat.	Above formula makes 1½ gallons of paint, which should cover about 4,[illegible] square feet, one coat.

(Where further gloss is desired, reduce drier to ¼ pint.)

21. (f) *Painting Wood Floors*—Continued:

FORMULA NO. 18
Underside of Porch Floors

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
3 gallons pure linseed oil.	3 gallons pure linseed oil.
1 pint pure drier.	1 quart pure turpentine.
	½ pint pure drier.
Above formula makes 5½ gallons of paint, which should cover about 4,[illegible] square feet, one coat.	Above formula makes 5½ gallons of paint, which should cover about 4,[illegible] square feet, one coat.

21. (g) *Painting Interior Plaster*

FORMULA NO. 19
Priming Coat

Dutch Boy wall primer.	Dutch Boy wall primer.
{ or }	{ or }
*100 pounds Dutch Boy or Carter *soft paste* white-lead.	*100 pounds Dutch Boy or Carter *heavy paste* white-lead.
3 gallons pure boiled linseed oil.	3 gallons pure boiled linseed oil.
1 gallons floor varnish.	1 gallons floor varnish.
1½ gallons pure turpentine.	1½ gallons pure turpentine.
Dutch Boy wall primer covers about [illegible] square feet, one coat. The white-lead and oil formula makes 5½ gallons of paint which should cover about 4,[illegible] square feet, one coat.	Dutch Boy wall primer covers about [illegible] square feet, one coat. The white-lead and oil formula makes 5½ gallons of paint which should cover about 4,[illegible] square feet, one coat.

FORMULA NO. 20
Second Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1½ gallons Dutch Boy flatting oil.	1 gallons Dutch Boy flatting oil.
1 gallons Dutch Boy wall primer.	1 gallons Dutch Boy wall primer.
{ or }	{ or }
*100 pounds Dutch Boy or Carter *soft paste* white-lead.	*100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1½ gallons pure turpentine.	1½ gallons pure turpentine.
½ gallon floor varnish.	½ gallon floor varnish.
½ pint pure drier.	½ pint pure drier.
The flatting oil formula makes 5 gallons of paint which should cover about 4,[illegible] square feet, one coat. The turpentine formula makes 5½ gallons of paint which should cover about 4,[illegible] square feet, one coat.	The flatting oil formula makes 5 gallons of paint which should cover about 4,[illegible] square feet, one coat. The turpentine formula makes 5½ gallons of paint which should cover about 4,[illegible] square feet, one coat.

*Use only under 14 lb.
†Where boiled oil is used, reduce drier to ¼ pint.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 11159

31. (g) *Painting Interior Plaster*—Continued:

FORMULA NO. 52

Third Coat

Flat Finish

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1¾ gallons Dutch Boy flatting oil.	1 gallons Dutch Boy flatting oil.
{or}	{or}
*100 pounds Dutch Boy or Carter *soft paste* white-lead.	*100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1½ gallons pure turpentine.	1 gallons pure turpentine.
1 pint floor varnish.	1 pint floor varnish.
½ pint pure drier.	½ pint pure drier.
The flatting oil formula makes 1 gallons of paint which should cover about 4,000 square feet, one coat. The turpentine formula makes 1½ gallons of paint which should cover about 4,000 square feet, one coat.	The flatting oil formula makes 1 gallons of paint which should cover about 4,000 square feet, one coat. The turpentine formula makes 1½ gallons of paint which should cover about 4,000 square feet, one coat.

FORMULA NO. 53

Third Coat

Egg-Shell Gloss Finish

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1¾ gallons Dutch Boy flatting oil.	1 gallons Dutch Boy flatting oil.
8 gallons Dutch Boy wall primer.	8 gallons Dutch Boy wall primer.
{or}	{or}
*100 pounds Dutch Boy or Carter *soft paste* white-lead.	*100 pounds Dutch Boy or Carter *heavy paste* white-lead.
¾ gallon pure turpentine.	1 gallon pure turpentine.
1¾ gallons floor varnish.	1¾ gallons floor varnish.
¾ pint pure drier.	¾ pint pure drier.
The flatting oil formula makes 10 gallons of paint which should cover about 11,000 square feet, one coat. The turpentine formula makes 10 gallons of paint which should cover about 8,000 square feet, one coat.	The flatting oil formula makes 10 gallons of paint which should cover about 11,000 square feet, one coat. The turpentine formula makes 10 gallons of paint which should cover about 8,000 square feet, one coat.

All one color or tint.

31. (g) *Painting Interior Plaster*—Continued:

FORMULA NO. 53

Third Coat

Enamel Finish

The following formula shall be used for white or light colors:

3 pounds Dutch Boy or Carter *heavy paste* or *soft paste* white-lead.
1 gallon floor varnish.

[The varnish coat is to be mixed with turpentine in the proportion of 1 pounds to 1 gallon and thoroughly stirred. The mixture shall then be drawn off and the varnish added to the white lead.]

Formula No. 53 makes one gallon of paint, which should cover about 500 square feet, one coat.

FORMULA NO. 54

Plastic Paint

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
25 pounds dry whiting.	25 pounds dry whiting.
1¾ gallons Dutch Boy flatting oil.	1¾ gallons Dutch Boy flatting oil.
¾ pint pure drier.	¾ pint pure drier.
Above formula makes 1½ gallons of paint, which should cover about 400 square feet, one coat.	Above formula makes 1½ gallons of paint, which should cover about 400 square feet, one coat.

31. (h) *Painting Interior Metal*

FORMULA NO. 55

Priming Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1 gallons pure boiled oil.	1 gallons pure boiled oil.
¾ gallon pure turpentine.	1 gallon pure turpentine.
½ pint pure drier.	½ pint pure drier.
This formula makes 3 gallons of paint which should cover about 4,000 square feet, one coat.	This formula makes 3 gallons of paint which should cover about 4,000 square feet, one coat.

FORMULA NO. 56

Second Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1¾ gallons Dutch Boy flatting oil.	1 gallons Dutch Boy flatting oil.
{or}	{or}
*100 pounds Dutch Boy or Carter *soft paste* white-lead.	*100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1¼ gallons pure turpentine.	1 gallons pure turpentine.
1 pint pure drier.	1 pint pure drier.
The flatting oil formula makes 1 gallons of paint which should cover about 4,000 square feet, one coat. The turpentine formula makes 1½ gallons of paint which should cover about 4,000 square feet, one coat.	The flatting oil formula makes 1 gallons of paint which should cover about 4,000 square feet, one coat. The turpentine formula makes 1½ gallons of paint which should cover about 4,000 square feet, one coat.

All one color or tint.

*When boiled oil is used, reduce drier to ½ pint.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NL1 111592

21. (h) *Painting Interior Metal*—Continued:

FORMULA NO. 17

Third Coat—Flat Finish

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1½ gallons Dutch Boy flatting oil.	1 gallons Dutch Boy flatting oil.
(or)	(or)
*100 pounds Dutch Boy or Carter *soft paste* white-lead.	*100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1½ gallons pure turpentine.	1 gallons pure turpentine.
1 pint floor varnish.	1 pint floor varnish.
½ pint pure drier.	½ pint pure drier.

The flatting oil formula makes 1 gallons of paint which should cover about 1,000 square feet, one coat. The turpentine formula makes 1 gallons of paint which should cover about 1,000 square feet, one coat.

FORMULA NO. 18

Third Coat—Egg-Shell Gloss Finish

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
½ gallon Dutch Boy flatting oil.	1 gallon Dutch Boy flatting oil.
1½ gallons floor varnish.	1½ gallons floor varnish.
(or)	(or)
*100 pounds Dutch Boy or Carter *soft paste* white-lead.	*100 pounds Dutch Boy or Carter *heavy paste* white-lead.
½ gallon pure turpentine.	1 gallon pure turpentine.
1½ gallons floor varnish.	1½ gallons floor varnish.
½ pint pure drier.	½ pint pure drier.

The flatting oil formula makes 1½ gallons of paint which should cover about 1,500 square feet, one coat. The turpentine formula makes 1½ gallons of paint which should cover about 1,875 square feet, one coat.

21. (i) *Painting Brick, Stone, Concrete and Stucco*

FORMULA NO. 19

Priming Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
3 gallons pure boiled linseed oil.	3 gallons pure boiled linseed oil.
1½ gallons pure turpentine.	1½ gallons pure turpentine.
1 gallons spar varnish.	1 gallons spar varnish.

Oil boiled linseed not necessary for stucco; 1 gallons paint will cover 1½ square feet for substantial. Above formula makes 5½ gallons of paint, which should cover about 1,375 square feet, one coat.

Oil boiled linseed not necessary for stucco; 1 gallons paint will cover 1½ square feet for substantial. Above formula makes 5½ gallons of paint, which should cover about 1,375 square feet, one coat.

This coat under or tint.

21. (i) *Painting Brick, Stone, Concrete and Stucco*—Continued:

FORMULA NO. 30

Second Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1 gallons pure linseed oil.	1 gallons pure linseed oil.
1½ gallons pure turpentine.	1½ gallons pure turpentine.
½ pint pure drier.	½ pint pure drier.

Above formula makes 4½ gallons of paint, which should cover about 1,000 square feet, one coat.

Above formula makes 4½ gallons of paint, which should cover about 1,000 square feet, one coat.

FORMULA NO. 31

Third Coat

Oil-Gloss Finish

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1 gallons pure linseed oil.	1 gallons pure linseed oil.
½ pint pure drier.	1 quart pure turpentine.
	½ pint pure drier.

Above formula makes 4½ gallons of paint, which should cover about 1,750 square feet, one coat.

Above formula makes 4½ gallons of paint, which should cover about 1,750 square feet, one coat.

FORMULA NO. 32

Third Coat

Flat Finish

100 pounds Dutch Boy or Carter *soft paste* white-lead.	100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1½ gallons Dutch Boy flatting oil (or turpentine.)	1 gallons Dutch Boy flatting oil (or turpentine).

Above formula makes 3 gallons of paint, which should cover about 1,000 square feet, one coat.

Above formula makes 3 gallons of paint, which should cover about 1,000 square feet, one coat.

Without boiled oil in coat, reduce drier to ½ pint.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLL 111593

21. (1) *Painting Concrete Floors*

FORMULA NO. 11

Priming Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.
3 gallons pure boiled linseed oil.
1½ gallons pure turpentine.
1 gallons floor varnish.

100 pounds Dutch Boy or Carter *heavy paste* white-lead.
3 gallons pure boiled linseed oil.
1½ gallons pure turpentine.
1 gallons floor varnish.

[illegible]

Allowing formula makes 5½ gallons of paint, which should cover about 1,650 square feet, one coat.

Allowing formula makes 5½ gallons of paint, which should cover about 1,650 square feet, one coat.

FORMULA NO. 12

Second Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.
½ gallon pure linseed oil.
2½ gallons pure turpentine.
1 pint paste drier.

100 pounds Dutch Boy or Carter *heavy paste* white-lead.
½ gallon pure linseed oil.
2½ gallons pure turpentine.
1 pint paste drier.

Allowing formula makes 4 gallons of paint, which should cover about 1,200 square feet, one coat.

Allowing formula makes 4 gallons of paint, which should cover about 1,200 square feet, one coat.

FORMULA NO. 13

Third Coat

100 pounds Dutch Boy or Carter *soft paste* white-lead.
1½ gallons pure turpentine.
4 gallons floor varnish.

100 pounds Dutch Boy or Carter *heavy paste* white-lead.
1½ gallons pure turpentine.
4 gallons floor varnish.

Allowing formula makes 5½ gallons of paint, which should cover about 1,650 square feet, one coat.

Allowing formula makes 5½ gallons of paint, which should cover about 1,650 square feet, one coat.

SECTION C

Application of the Paint

Section C. The specification section is not included in the method of procedure suggested in Section C. No step which follows has been included of painting the work and ground painting preparation. In this case it will be found that Section C contains all that is indeed that necessary to cover this essential part of the specification.

All formulas recommended in Section C will be found in three specific sections, as indicated below:

Formula	Page	Formula	Page	Formula	Page
1	6	11	10	14	14
2	6	12	11	15	14
3	6	13	11	16	14
4	7	14	11	17	14
5	7	15	11	18	14
6	7	16	11	19	14
7	7	17	11	20	14
8	8	18	11	21	14
9	8	19	11	22	14
10	8	20	11	23	14
11	8	21	11	24	14
12	9	22	11	25	14
13	10	23	11	26	14

22. PAINTING NEW OUTSIDE WOOD:

(a) (Here list and describe surfaces to be painted.)
(b) All woodwork shall be primed with formula No. 1 and shall receive two additional coats, using formulas No. 2 and No. 3, respectively.
(c) (If colors other than white are to be used, specifications of colors and where they are to be used should be stated here.)

23. REPAINTING OUTSIDE WOOD:

(a) (Here list and describe surfaces to be painted.)
(b) All woodwork shall receive two coats, using formulas No. 4 and No. 5, respectively.
(c) (If colors other than white are to be used, specifications of colors and where they are to be used should be stated here.)

24. PAINTING NEW INSIDE WOOD:

(a) (Here list and describe surfaces to be painted, specifying finish to be used.)
(b) All woodwork shall be primed with formula No. 6, and shall receive two additional coats, using formula No. 7 for the second coat and formula No. (8, *flat finish*; 9, *egg-shell gloss*; or 10, *enamel finish*) for the finishing coat.
(c) (If colors other than white are to be used, specifications of colors and where they are to be used should be stated here.)

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111594

25. PAINTING INSIDE WOOD:

(a) (Here list and describe *surfaces* to be painted, specifying finish to be used.)

(b) All woodwork shall receive two coats, using formula No. 11 for the first coat and formula No. (12, *flat finish*; 13, *egg-shell gloss*; or 14, *enamel finish*) for the finishing coat.

(c) (If colors other than white are to be used, specifications of colors and where they are to be used should be stated here.)

26. PAINTING WOOD FLOORS:

(a) (Here list and describe *surfaces* to be painted.)

(b) All floors not previously painted shall be primed with formula No. 15 and shall receive two additional coats, using formulas No. 16 and No. 17, respectively.

(c) All floors previously painted shall be touched up on worn places, using formula No. 16, after which they shall receive two coats, using formulas No. 16 and No. 17, respectively.

(d) Undersides of all new porch floors and the tongued and grooved edges of the boards shall receive one coat, using formula No. 18.

27. PAINTING INTERIOR PLASTER:

(a) (Here list and describe *surfaces* to be painted, specifying finish to be used.)

(b) All walls not previously painted shall be primed with formula No. 19, and shall receive two additional coats, using formula No. 20 for the second coat and formula No. (21, *flat finish*; 22, *egg-shell gloss*; or 23, *enamel finish*) for the finishing coat. (All walls previously painted do not require the priming coat.)

(c) All walls not previously painted which are to receive a plastic finish shall be primed with formula No. 19. (All walls previously painted do not require the priming coat.)

(d) (If colors other than white are to be used, specifications of colors and where they are to be used as well as *any instructions* as to special finishes (see note below) should be stated here.)

> (The architect may wish to include in his specifications one or more of the above blank forms to be completed with colors chosen for each white lead paint and enamel for the finish coats of various rooms and surfaces in the new well-to-do home. You may wish to have the Paint Manufacturer Lead Company will send on request a [illegible] and descriptions of the [illegible] paints, varnishes, enamels and [illegible] well adapted to modern decorative [illegible] and where they are to be used have a [illegible] [illegible].)

28. PAINTING INTERIOR METAL:

(a) (Here list and describe *surfaces* to be painted specifying finish to be used.)

(b) All work which is delivered unprimed shall receive three coats of paint, using formula No. 25 for the priming coat, formula No. 26 for the second coat and formula No. (27, *flat finish*; or 28, *egg-shell gloss finish*) for the finishing coat.

(c) All work which is delivered primed shall receive two coats, using formula No. 26 for the first coat and formula No. (27, *flat finish*; or 28, *egg-shell gloss finish*) for the finishing coat.

(d) (If colors other than white are to be used, specifications of colors and where they are to be used should be stated here.)

29. PAINTING BRICK, STUCCO, CONCRETE AND STONE:

(a) (Here list and describe surfaces to be painted specifying finish to be used.)

(b) All *exterior* brick, stucco, concrete and stone surfaces not previously painted shall be primed with formula No. 29 and shall receive two additional coats, using formula No. 30 for the second coat and formula No. (31, *egg-shell finish*; or 32, *flat finish*) for the finishing coat. (All brick, stucco, concrete and stone surfaces previously painted do not require the priming coat.)

(c) All interior brick, stucco, concrete and stone surfaces not previously painted shall be primed with formula No. 29 and shall receive two additional coats, using formula No. 30 for the second coat and formula No. 31 for the finishing coat. (All brick, stucco, concrete and stone surfaces previously painted do not require the priming coat.)

(d) (If brick is to be lined off, it should be so specified here.)

30. PAINTING CONCRETE FLOORS:

(a) (Here list and describe the surfaces to be painted.)

(b) All concrete floors not previously painted shall be primed with formula No. 33 and shall receive two additional coats, using formulas No. 34 and No. 35, respectively.

(All concrete floors previously painted do not require the priming coat.)

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111595

for the first coat and formula No. [illegible], flat finish, or 56, [illegible] gloss finish) for the finishing coat.

(d) (If colors other than white are to be used, specifications of colors and where they are to be used should be stated here.)

SUPPLEMENT

A. S. T. M. AND GOVERNMENT SPECIFICATIONS

On the following pages will be found specifications of the American Society for Testing Materials and of the United States Government, on the paint materials listed below:

	SPECIFICATION	PAGE
White-Lead	A. S. T. M. Standard	22, 23
Raw Linseed Oil	A. S. T. M. Standard	24
Boiled Linseed Oil	A. S. T. M. Standard	24
Turpentine	A. S. T. M. Standard	25
Drier	A. S. T. M. Tentative	26
Putty	Government Standard	27
Putty	A. S. T. M. Standard	28, 29

AMERICAN SOCIETY FOR TESTING MATERIALS

STANDARD SPECIFICATIONS

FOR

BASIC CARBONATE WHITE LEAD

A.S.T.M. Designation: D 81-35[a]

These specifications are issued under the fixed designation D 81; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Issued as Tentative, 1921; Adopted in Amended Form, 1924; Revised, 1931, 1933.

1. These specifications cover what is commonly known as basic carbonate white lead used as a pigment and in putty, purchased either as dry pigment, paste in oil, semi-paste in oil or semi-paste with turpentine.

Manufacture

2. (a) *Dry Pigment.*—The pigment shall be the product made from metallic lead and shall have a composition corresponding approximately to the formula $2PbCO_3.(OH)_2$. It shall be thoroughly washed after corroding, shall be free from impurities and adulterants, and shall meet the requirements given in Section 3.

(b) *Paste.*—The paste shall be made by thoroughly grinding the specified pigment with linseed oil, to a paste consistency.

(c) *Semi-Paste.*—The semi-paste shall be made by thoroughly grinding the specified pigment with linseed oil to a semi-paste consistency.

Properties and Tests

3. (a) *The color and color strength*, when specified, shall be equal to that of a sample mutually agreed upon by buyer and seller.

(b) *Dry Pigment.*—The pigment shall conform to the following requirements:

	Maximum	*Minimum*
Lead carbonate, per cent	75.0	65.0
Total impurities, including moisture, per cent	2.0	....
Coarse particles retained on a No. 325 sieve[b], per cent	1.0	....

[a] Subject to any revision if and when made.
[b] See note on following page.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111596

(c) *Paste.*—The paste shall not be caked in the container and shall break up readily to oil to form a smooth paste of brushing consistency.

The paste shall conform to the following requirements:

	Maximum	*Minimum*
Pigment, per cent	....	89.0
Linseed oil, per cent	11	....
Moisture and other volatile matter, per cent	.07	....
Coarse particles and skins (total residue retained on a No. 325 sieve)**, per cent of the dry pigment	0.5	....

(d) *Semi-Paste.*—The semi-paste shall not be caked in the container and shall be readily stirred to a uniform mixture which shall mix readily with oil to form a smooth paste of brushing consistency.

The semi-paste shall conform to the following requirements:

	Maximum	*Minimum*
Pigment, per cent	88	83
Linseed oil, per cent	17	12
Moisture and other volatile matter, per cent	0.7	....
Coarse particles and skins (total residue retained on a No. 325 sieve)**, per cent of the dry pigment	0.5	....

Sampling and Tests

6. One sample shall be taken at random from each lot of 1000 packages or less. If the packages are of such size that 1000 packages amount to more than a carload, one sample shall be taken at random from each carload.

(a) *Semi-paste with turpentine.*—The semi-paste shall not be caked in the container and shall be readily stirred to a uniform mixture which shall mix readily with oil, turpentine or mineral spirits to form a smooth paste of brushing consistency. The color of the semi-paste, as taken from the container, while drying or after drying, shall be not abnormally pungent or disagreeable.

The semi-paste shall conform to the following requirements:

	Maximum	*Minimum*
Pigment, per cent	....	87.5
Linseed oil, per cent	10.5	....
Volatile matter* and moisture, per cent	1.0	0.5
Moisture, per cent	0.7	....
Coarse particles and skins (total residue retained on a No. 325 sieve)**, per cent of the dry pigment	0.5	....

*If a volatile matter shall be turpentine, mineral spirits or any mixture thereof.

**For determining coarse particles, sieves 3 in. or diameter are recommended. The sieves shall be described as follows: No. 325 cloth of the U. S. Standard Sieve Series should be made of wire 0.0 in. diameter, or 3 in. diameter, a subdivision of 25 per cent coarse and 35 per cent fine being allowed on the diameter. The sieve frames should be adjusted parallel and should be strong with 0.0007 in. the tolerance being 5 per cent with the to insure tightness that the maximum opening shall not exceed twice mm. by more than 10 per cent.

AMERICAN SOCIETY FOR TESTING MATERIALS

STANDARD SPECIFICATIONS

FOR

RAW LINSEED OIL[1]

Serial Designation: D 234—38[2]

These specifications are issued under the fixed designation D 234; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Issued as Tentative, 1926; Adopted in Amended Form, 1927; Revised, 1938.

Properties and Tests

1. Linseed oil shall be the pure oil pressed from flaxseed and shall conform to the following requirements:

	Maximum	*Minimum*
Specific Gravity 15.5°/15.5° C.	0.936	0.931
Acid Number	4.0	....
Saponification Number	195.0	189.0
Unsaponifiable Matter, per cent	1.50	....
Iodine Number (Wijs)	....	177.0[3]
Loss on Heating at 105-110° C., per cent	0.1	....
Color	Not darker than a freshly prepared solution of 1.0 g. potassium bichromate in 100 cc. pure sulfuric acid (sp. gr. 1.84).	
Foots, per cent:		
Heated Oil	1.0	....
Chilled Oil	4.0	....

[3] If linseed oil of the high iodine-number type is desired, the minimum iodine number, as specified above, should be changed to 185.0.

Methods of Testing

For further details, reference should be made to the complete specifications which will be found in the publications of the American Society for Testing Materials.

[1] Under the standardization procedure of the Society, these specifications are under the jurisdiction of the A. S. T. M. Committee D-1 on Preservative Coatings for Structural Materials.

[2] These specifications supersede the Standard Specifications for Purity of Raw Linseed Oil from North American Seed (last issued under the serial designation D 1-33) and also supersede the Tentative Specifications for Purity of Raw Linseed Oil from Non-North American Seed (D 33-41 T) and the Tentative Specifications for Foots Permissible in Properly Clarified Pure Raw Linseed Oil from North American Seed (D 50-18 T).

[3] Subject to any revision if and when made.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111597

[14]

[15]

AMERICAN SOCIETY FOR TESTING MATERIALS

STANDARD SPECIFICATIONS

FOR

BOILED LINSEED OIL

A. S. T. M. Designation D 160—33[a]

These specifications are issued under the fixed designation D 160; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Issued, 1927; Revised, 1928; Adopted as standard, 1933.

Properties and Tests

1. Boiled linseed oil shall be pure linseed oil that has been treated by heating and incorporating compounds of lead, and at the option of the manufacturer suitable compounds of other drying metals, so as to produce a product that will dry rapidly. It shall be clear, free from sediment, and shall conform to the following requirements, when tested in accordance with the methods described in Sections 3 to 13 inclusive:

	Maximum	Minimum
Time of drying on glass, hours	18.0	....
Specific Gravity, 15.5/15.5° C.	0.945	0.931[b]
Acid Number	7.5	....
Saponification Number	195.0	175.0
Unsaponifiable Matter, per cent	1.50	....
Iodine Number (Wijs)	....	170.0
Loss on Heating at 105 to 110° C., per cent	0.2	....
Ash, per cent	0.50	....
Lead, per cent	....	0.05

[b] When a high viscosity type of boiled linseed oil is required, the specific gravity shall not be less than 0.937.

Methods of Testing

For further details, reference should be made to the complete specifications which will be found in the publications of the American Society for Testing Materials.

[a] Subject to any revision if and when made.

AMERICAN SOCIETY FOR TESTING MATERIALS

TENTATIVE SPECIFICATIONS

FOR

SPIRITS OF TURPENTINE

A.S.T.M. Designation D-13-33T

This is a Tentative Standard, published for the purpose of eliciting criticism and suggestions, and as such is subject to annual revision.

Issued, 1933.

1. These specifications apply to the following kinds of spirits of turpentine: gum spirits of turpentine, steam-distilled wood turpentine, sulphate wood turpentine, and destructively-distilled wood turpentine. The purchaser should specify the kind of spirits of turpentine desired.

Properties and Tests

2. Spirits of turpentine shall be pure and shall conform to the following requirements:

	Gum Spirits of Turpentine		Wood Turpentine: Steam-Distilled		Wood Turpentine: Sulphate		Wood Turpentine: Destructively Distilled	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Specific gravity, 15.5/15.5° C.	0.875	0.860	0.875	0.860	0.875	0.860	0.866	0.860
Refractive index at 20° C., D line	1.478	1.465	1.478	1.465	1.478	1.465	1.483	1.465
Residue after polymerization with 38 KH_2SO_4:								
Volume, per cent	5	....	5	....	5	....	5	....
Refractive index at 20° C.	....	1.500	....	1.500	....	1.500	....	1.480
Initial boiling point at 760 mm. pressure, deg. C.	160	150	160	150	160	150	157	150
Distilling below 170° C. at 760 mm. pressure, per cent	....	90	....	90	....	90	....	80
Distilling below 180° C. at 760 mm. pressure, per cent								90

3. Spirits of turpentine shall be clear and free from suspended matter and water.

4. The color shall be "standard" or better.

5. The odor shall be mild and characteristic of the kind of spirits of turpentine specified. If desired, deliveries shall conform to the odor of the sample mutually agreed upon by the purchaser and seller.

6. The sampling and methods of testing shall be conducted in accordance with the Standard Methods of Sampling and Testing Turpentine (A.S.T.M. Designation: D 133) of the American Society for Testing Materials.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111598

UNITED STATES GOVERNMENT MASTER SPECIFICATION*

FOR

DRIER; PAINT, LIQUID

A. *Applicable Federal Specifications*

A-1. There are no other Federal specifications applicable to this specification.

B. *Type*

B-1. Liquid paint drier shall be of two types, as follows. (The type or types desired shall be stated in the invitation for bids.)

TYPE I.—For general use, containing lead.

TYPE II.—For special lead-free paint, containing no lead.

C. *Material and Workmanship*

C-1. The manufacturer is given wide latitude in the selection of raw materials and process of manufacture so that he may produce drier of the highest quality.

D. *General Requirements*

D-1. See "Detail requirements."

E. *Detail Requirements*

E-1. *Appearance.*—The drier shall be a mobile liquid free from sediment and suspended matter and shall show no clotting or gelatinization.

E-2. *Color.*—The drier shall be of such a color that when mixed with pure raw linseed oil in the proportion of 1 volume of drier to 8 volumes of oil the resulting solution shall be no darker than a solution of 3 g. of potassium dichromate in 100 ml. of pure sulphuric acid of specific gravity 1.84.

E-3. *Flash point.*—(Closed cup.) Not lower than 38° C. (100° F.).

E-4. *Nonvolatile matter.*—Not more than 50 per cent by weight.

E-5. *Volatile matter.*—Shall be composed of turpentine, mineral spirits, or a mixture of these.

E-6. *Ash.*

TYPE I.—The drier shall yield an ash which shall show on analysis not less than 10 per cent of lead calculated as metallic lead.

TYPE II.—When lead-free drier is specifically called for in the contract the ash of the drier shall contain no lead.

E-7. *Action with linseed oil.*—It shall mix with pure raw linseed oil in the proportion of 1 volume of drier to 19 volumes of oil without curdling.

E-8. *Drying properties.*—The above mixture (1:19) with linseed oil, when flowed on glass, shall dry properly in not more than 8 hours.

F. *Methods of Testing*

For further details reference should be made to the complete specifications which may be obtained from the Government Printing Office, Washington, D. C.

*Section IV (Part 5.)

AMERICAN SOCIETY FOR TESTING MATERIALS

STANDARD SPECIFICATIONS

FOR

GLAZIER'S PUTTY

*A. S. T. M. Designation: D 317—33**

These specifications are issued under the fixed designation D 317; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Issued, 1930; adopted as standard, 1933.

1. These specifications cover two classes of putty for glazing and similar purposes, as follows:

Class A.—Whiting putty.

Class B.—White-lead whiting putty.

The putty shall be furnished in natural color, or tinted or colored as specified by the purchaser.

MANUFACTURE

2. The putty shall be made by thoroughly grinding or "chasing" the specified dry pigment with pure raw linseed oil to a dough-like paste of proper consistency.

PROPERTIES AND TESTS

3. (a) The dry pigment shall conform to the following requirements:

	Whiting Putty	White-Lead Whiting Putty
Calcium Carbonate, minimum, per cent	95	..
White-lead, minimum, per cent	..	10
Total calcium carbonate and white lead, minimum, per cent	..	95
Tinting pigment plus impurities, maximum, per cent	5	5

(b) *Whiting.*—The whiting used in both classes of putty shall be free from grit, shall be practically neutral and shall have a structure and physical characteristics adapted to the manufacture of putty of the required physical properties.

*Subject to any revision if and when made.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111599

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00059

NLI 111600