

**Water-Based
Paint
Formulations
Volume 3**

Ernest W. Flick

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WATER-BASED PAINT FORMULATIONS

Volume 3

by

Ernest W. Flick



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WATER-BASED PAINT FORMULATIONS

To
Carol and Bob
and
Janet and Dennis; Karen and David
and
their families

Preface

This collection of 463 up-to-date water-based trade and industrial formulations will be of value to technical and managerial personnel in paint manufacturing companies and firms which supply raw materials or services to these companies, and to those interested in less hazardous, environmentally safer formulations. The book will be useful to both those with extensive experience as well as those new to the field. This book includes new and different formulations than those included in the previously published *Industrial Water-Based Paint Formulations* and *Water-Based Trade Paint Formulations*.

The data consist of selections of manufacturers' suggested formulations made at no cost to, nor influence from, the makers or distributors of these materials. The information given is presented as supplied; the manufacturer should be contacted if there are any questions. Only the most recent data supplied us has been included. Any solvent contained is minimal.

The table of contents is organized in such a way as to serve as a subject index. The formulations described are divided into sections which cover exterior, interior, and exterior and/or interior water-based paints, enamels, and coatings, as indicated below:

- I. Coatings and Topcoats
- II. Coil Coatings
- III. Enamels
- IV. Enamels—Baking
- V. Exterior Paints and Related
- VI. Interior Paints and Related
- VII. Lacquers
- VIII. Primers
- IX. Sealers
- X. Stains
- XI. Texture Paints
- XII. Miscellaneous

Each formula has been placed in the chapter which is most applicable. The reader, if seeking a formula for a specific end use, should check each chapter which could possibly apply.

In addition to the above, there are two other sections which will be helpful to the reader:

- XIII. A chemical trade name section where trade-named raw materials are listed with a chemical description and the supplier's name. The specifications which the raw materials meet are included if applicable.
- XIV. Main office addresses of the suppliers of trade-named raw materials and/or formulations.

Included in the descriptive information for each formulation, where available, the following properties may be listed: viscosity, solids content, % nonvolatiles, pigment volume concentration, density, pH, spatter, leveling, sag resistance, scrub cycles to failure, contrast ratio, ease of dispersion, fineness of grind, heat stability, freeze-thaw stability, ease of application, gloss foaming, cratering, brightness, opacity, water spotting, adhesion to chalk, brush clean-up, reflectance, and sheen.

Ernest W. Flick

Notice

To the best of our knowledge the information in this publication is accurate; however, the Publisher does not assume any responsibility or liability for the accuracy or completeness of, or consequence arising from, such information. These formulations do not purport to contain detailed manufacturing nor user instruction, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Author or Publisher.

Water-based paint raw materials could be toxic, and therefore, due caution should always be exercised in the use of these hazardous materials. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users seek and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The Author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

INDUSTRIAL WATER-BASED PAINT FORMULATIONS

by

Ernest W. Flick

This collection of 220 up-to-date industrial water-based paint formulations will be of value to technical and managerial personnel in paint manufacturing firms, and firms which supply raw materials or services to these companies, and those generally interested in less hazardous, environmentally safer formulations.

U.S. paint manufacturers ship over 950 million gallons of paints and coatings per year, for a total dollar volume approaching \$10 billion. The industry seems to thrive on competition, and technical challenges are being met with new generation finishes with improved durability and drying time, and, of course, a water base.

The data in the book consist of selections of manufacturers' suggested formulations made at no cost to, nor influence from, the makers or distributors of these materials. The information given is presented as supplied. Only the most recent data supplied have been included. Any solvent contained is minimal.

The book is divided into the following Sections:

1. Air Dry Coatings (14)
2. Air Dry or Force Dry Coatings (10)
3. Anti-Skid or Non-Slip Coatings (2)
4. Bake Dry Coatings (47)
5. Clear Coatings (10)
6. Coil Coatings (7)
7. Concrete Coatings (6)
8. Dipping Enamels (5)
9. Lacquers (27)
10. Primers (44)
11. Protective Coatings (3)
12. Spray Enamels (3)
13. Topcoats (18)
14. Traffic and Airfield Paints (7)
15. Miscellaneous (17)

Parenthetic numbers indicate the number of formulations in each section. In addition to the above, there are two other Sections which will be helpful:

16. A chemical trade name section where trade-named raw materials are listed with a chemical description and the supplier's name. The specifications which the raw materials meet are included, if applicable.
17. Main office addresses of the suppliers of trade-named raw materials.

Included in the descriptive information for each formulation, where available, the following may be listed:

1. Type of paint or coating
2. End use
3. Ingredients, by weight and/or volume
4. Mixing suggestions
5. Properties such as viscosity, total solids (by weight and/or volume), gloss, pencil hardness, pH, nonvolatiles, pigment/binder ratio, density, flash point, adhesion
6. Formulation source

Other Noyes Publications

WATER-BASED TRADE PAINT FORMULATIONS

by

Ernest W. Flick

This collection of 562 up-to-date water-based trade paint formulations will be of value to technical and managerial personnel in paint manufacturing companies and firms which supply raw materials or services to these companies, and to those interested in less hazardous, environmentally safer formulations. The book will be useful to both those with extensive experience as well as those new to this ever expanding \$10 billion/year industry.

The data in the book consist of selections of manufacturers' suggested formulations made at no cost to, nor influence from, the makers or distributors of these materials. The information given is presented as supplied; only the most recent data supplied have been included. Any solvent contained is minimal.

Included in the descriptive information for each formulation, where available, the following properties may be listed: viscosity, solids content, % nonvolatiles, pigment volume concentration, density, pH, spatter, leveling, sag resistance, scrub cycles to failure, contrast ratio, ease of dispersion, fineness of grind, heat stability, freeze-thaw stability, ease of application, gloss, foaming, cratering, brightness, opacity, water spotting, adhesion to chalk, brush clean-up, reflectance, and sheen.

The formulations described are divided into three major sections, which cover exterior, interior, and exterior and/or interior water-based paints, enamels, and coatings. Further subdivision into chapters is as indicated below. Parenthetic numbers indicate the number of formulations per section or chapter. Also included are a **Trade-Named Raw Materials** section and a list of **Suppliers' Addresses**.

I. EXTERIOR PAINTS, ENAMELS AND COATINGS (148)

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- 3. Exterior Tinted Paints (10)**
- 4. Exterior Trim Tint-Base Enamels (4)**
- 5. Exterior White Paints (43)**
- 6. Exterior White and Light Tint Paints (6)**
- 7. Exterior White Semi-Gloss Paints and Enamels (7)**
- 8. Roof Coatings (11)**
- 9. Miscellaneous Exterior Paints (8)**

II. INTERIOR PAINTS, ENAMELS AND COATINGS (234)

- 10. Interior Flat Paints (88)**
- 11. Interior Flat Tint Bases (19)**
- 12. Interior Flat White Paints (37)**
- 13. Interior Flat White and Tint Bases (19)**
- 14. Interior Semi-Gloss Paints and Enamels (37)**
- 15. Interior Tint Base Semi-Gloss Paints and Enamels (7)**
- 16. Interior Tinted Paints (8)**
- 17. Satin/Sheen/Eggshell Paints and Enamels (11)**
- 18. Stipple and Texture Paints (8)**

III. EXTERIOR AND/OR INTERIOR PAINTS, ENAMELS, PRIMERS AND STAINS (180)

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