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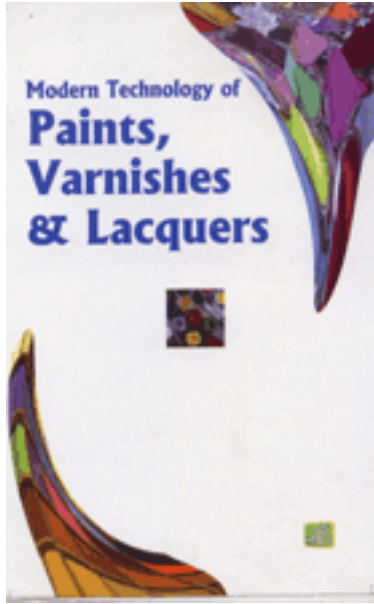
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Modern Technology of Paints, Varnishes & Lacquers

(2nd Edition)



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Surface coating industry is one of the most popular industries. Paints, varnishes and lacquers industry is gaining ground at a rapid pace in modern time accompanied with closed advance in surface coating technology. They are formulated for specific purposes: outside house paints and exterior varnishes are intended to give good service when exposed to weathering; interior wall paints are formulated to give excellent coverage and good wash ability; and lacquers are formulated for rapid drying. Varnish is one of the important parts of surface coating industry. Varnish is a transparent, hard, protective finish or film primarily used in wood finishing but also for other materials. They are used to change the surface gloss, making the surface more matte or higher gloss, or to provide the various areas of a painting with a more unified finish. Varnishes are also applied over wood stains as a final step to achieve a film for gloss and protection. Some products are marketed as a combined stain and varnish. Paint is any liquid, liquefiable, or mastic composition which after application to a substrate in a thin layer is converted to an opaque solid film. It is most commonly used to protect, colour or provide texture to objects. The paint industry volume in India has been growing at 15% per annum for quite some years now. As far as the future growth prospects are concerned, the industry is expected to grow at 12 to 13% annually over the next five years. The technology is required to produce different type of new paints and varnishes based on different type of uses. The paint and coatings industry plays an integral role in sustainability; coatings protect the objects we depend on every day, preserve our possessions, so they last longer and provide for a sustainable future. They are indispensable products that extend the useful life of everyday objects by acting as a protective barrier. These newer products have enabled paint manufacturers to improve the performance properties of their paints and coatings and so satisfy the more stringent requirements of our modern industrial society. The future for industrial paints, varnishes and lacquers is bright. In the next few years its value will go up gradually in line with the global trend.

The major contents of the book are application of paints, fundamentals of paint, varnishes and lacquers, manufacturing of different type of paints, paint formulation, pigment dispersion, emulsion paints, and so on. The book deals with fundamentals of paints, Varnishes and lacquers, pigments, Oils used in paints and varnishes, solvents, dryers, plasticizers, additives for surface coating, various types of paint manufacturing etc. The book is very useful for new entrepreneurs, existing units, technocrats, technical institutions and for those who wants to diversify in the field of paints manufacturing.

Content:

1. Application of Paints

Paint System Specification

Preparation of Paints

Establishment of the paint Manufacture Unit

Pigment

White Pigments

Black Pigments

Red Pigment

Green Pigment

Blue Pigment

Synthetic Ultramarine Blue

Yellow Pigment

Drying Oils & Driers

Drying Oils

Linsed Oil

Castro Oil & Dehydrated Castro Oil

Dehydrated Castro Oil (DCO)

Tung Oil

Soyabean Oil

Cashew Nut Shell Liquid (CNSL)

Other Less Important Oils

Refiningof Drying Oils

Diriers

2.Fundamentals of Paint, Varnishes & Lacquers

Paint

Varnishes

Lacquers

Solvents

White Pigments

Red Pigments

Yellow and Brown Earth Colours

Orange and Yellow Pigments

Green Pigments

Blue Pigments

Black Pigments

Extenders

Oils Used In Paints

Resins Used In Paints, Varnishes And Lacquers

Solvents Used In Paints, Varnishes and Lacquers

Addittives Used In Paints, Varnishes and Lacquers

3.Oils Used In Paints and Varnishes

Drying Oils

Conjugated Oils

Semi Drying Oils

Non-Drying Oils

Derivatives of Drying Oils

Refining of Oils

4.Solvents

Hydrocarbons

Ketones

Esters

Glycol Ethers

Alcohols

Terpenes

5.Plasticizers

General Properties of Plasticizers

6.Additives in surface Coatings

7.Formulary with Processes of Distempers,

Whitewash, Putties & Emulsion

White Distempeer

Sky Blue Distermper

Yellow Distermper

White Wash

Putties

Non-Freezing Putty

Modified Putty

Emulsion Paints

8.Formulations

Enamels

Luminous Paints

Paint for Structural Steel

Asbestos Paints

Mica Lustre Paint

Aluminum Priming for Wood

Water Emulsion Paints for Exterior Use

Varnishes

Lacques

9.Lacquers

Cellulose Products

Ethyl Cellulose

Lacpue Manufacture

Mertis of Cellulose Lacquers

Aeroplane Lacquer

Book Lacquer

Varnishes

Different kinds of Varnishes

Oil Varnish

Turpentine Varnish

Spirit Varnish

Water Varnish

Oil Varnishes

Preparation of Oil Varnishes

Gum Running

Addition of Drying Oils

Thinning

Maturing

Different kinds of Oil Varnishes

Exterior Varnish

Interior Decorators Varnish

Rubbing Varnish

Polishing Varnish

Flat Varnish

Gold Size

Black Varnish

Formulase of Oil Varnishes

Spirit Varnish or Lacquer

Resins

Solvents

Plasticizers

Alcohol Varnish

Turpentine Varnishes

Formulas for Preparing Spirit Varnishes

French Varnish

Varnish Prepared from Synthetic Resins

Spar Varnish

Process

10.Paint Manufacturing Different Types of Paints and

Various Formulations

Premixing

Grinding Operation

Tinting Operation

Oil Based Paints

Modern Gloss Finishes

Heat Resisting Paints

Flame Retardant Paints

Plastic Paints

Floor Paints

Flat Paints

Aluminium Paint

Wrinkle Finishes

Hammer Fnishes

Marine Coatings

Introduction

Ship Paints

Hull Paints

Top Sides Finish

Boot Topping Paints

Antifouling Paints
Anti-Corrosive Paints
Road Marking Paints
Chemical Resistant Coatings
Synthetic Enamel Paints
Bituminous Coatings
High Solids Finishes
Curing Agent :
Graphite and Graphite Paints

11. Primers

Primer for Metals
Types of Primers
Blast Primers
Metallic Zinc Primers
Red Oxide/Zinc Chrome Primers
Lead Based Primer
Wash Primer
Primers for wood
Leadless Primers :
Aluminium Primer
Emulsion Primers
Wall Primers & Sealers

12. Major Defects Which Occurs in Paints, Varnishes and Lacquers 125-129

Alligatoring
Bleeding
Blistering
Blooming
Blushing
Brush Drag
Brush Marking
Chalking
Checking
Cissing
Cracking
Efflorescence
Fading
Floating
Flooding
Gas Checking
Loss of Gloss
Lifting
Leaching
Orange Peel
Pinholing
Sagging

13. Powder Coatings

Thermoplastic Coatings

PVC Coatings

Thermosetting Coating Powders

Epoxy Powder Coatings

Formulation of Powder Coatings

Fluidized bed Coating

Electrostatic Fluidized Bed Coatings

Electrostatic Spray Coating

14. Drying Oils : Their Origin, Manufacture and Properties

General History

Types of Drying Oils

Manufacturing and Refining Methods

Solvent Extraction

The composition of Drying Oils

Future Developments

15. Pigments-General Classification and Description

Definition of Paint

Purposes of Pigments in Paint

Hiding Power of Paint

Extender Pigments

Pigment Manufacturing

16. White Hiding Pigment

17. Organic Toners and Mineral Pigments

Color Blending

Metallic Pigments

Blacks

Earth Colors

Inorganic Blues

Organic Blues

Browns

Greens

Organic Greens

Marron Pigment

Oranges

Reds

Violets

Yellows

18. Rosin and Rosin Derivatives

19. Alkyd Resin Technology

20. Miscellaneous Resins in Protective Coatings

Petroleum Resins

Terpene Resins

Coumarone-Indene Resins

Maleic Resins

Chlorinated Resins

21. Solvent-type Resins

Brush Lacquers

Acknowledgment

Ethyl Cellulose

Parlon

Vinyl Resins

Polystyrene and Styrene Resins

Acrylate and Methacrylate Resins

Allyl Resins

Pliolite

Silicone Resins

22. Hydrocarbon Thinners

Measures of Solvency

Composition

Viscosity Reduction

Tests for Purity

Volatility

Conclusion

23. Formulation of the "Volatiles" in Nitrocellulose Lacquers

Solvents and Diluents

Latent Solvents

Thinners

24. The application of Metallic Soaps as Driers, Fungicides,

Suspending Agents and Flatting Agents

Theories on the Mechanism of the Action of Driers

Efficiency of Driers

Effect of Vehicle

Metallic Soaps as Fungicides

Metallic Soaps and Suspending Agents

Metallic Soaps as Flatting Agents

25. The Testing of Raw Materials

Reasons for Testing Raw Materials

Completeness of Testing

Solvents

Drying Oils

Conclusion

26. Resin and Varnish Manufacture

Tung Oil

Oiticica Oil

Perilla and Linseed Oils

Other Oils

Oil-Resin Combinations

27. Industrial Finishes

Classification

Manufacturing Methods for Industrial Finishes

28. Trade Sales Paints

Shingle Stain

Spar Varnish
Exterior Enamels
Gaulking Compounds
Asphalt and Coal-tar Paint
Wall Primer and Sealers
Wall finish Coats
Enamel Undercoaters
Enamel Finish Coats
Varnishes
Floor Paints and Enamels
Miscellaneous
29. Water and Emulsion Paints
30. Aminoplast Resins
Chemistry and Composition
Commercial Practice and Composition
Functional Use and Mechanism
Formulation
31. Phenolic Resins
32. Epoxy Resins
Physical and Chemical Characteristics of Epoxy Resins
Two-Package or Amine-Cured Epoxy Coatings
Epoxy Esters
High-Performance Baking Finishes
Other Types of Epoxy Coatings
33. Acrylic Resins
Types of Acrylic Resins
Properties of Acrylic Resins
Polymerization of Acrylic Monomers
Applications of Acrylic Polymers
Starting Formulations
34. Vinyl Resins for Coatings
Polymerization Methods
Vinyl Chloride Solution Resins
Vinyl Dispersion Resins
Polyvinyl Acetal Resins
Polyvinyl Acetate
35. Urethane Coatings
Raw Materials
Coating Vehicle Intermediates
Chemistry
Classification of Coatings
Drying Oil Modified Urethanes
Prepolymers
Blocked Isocyanates
Two-Package Urethane Coatings Astm-4
Polyester/Polyisocyanate Two-Component Systems, Astm-5

Comparison of Urethane Coatings with Competitive Coatings

Improved Color Stability

Lower-Cost Urethanes

Conclusion

36. Oxygenated Solvents

Ester Solvents

Ketone Solvents

Glycol Ether Solvents

Alcohols

Other Solvents

Solvent Properties

Formulation of Solvents Systems

37. White Pigments

Opacity

The reactive white Pigments

The nonreactive white Pigments

38. Coloured Pigments

Chrome Yellows

Zinc Yellows

Strontium Yellow

Nickel Titanate Yellow

Nickel Azo Yellow

Cadmium Yellow

Yellow Iron Oxide

Hansa Yellows

Benzidine Yellows

Vat Yellows

Chrome Orange

Molybdate Orange

Cadmium Orange

"Mercadium" Orange

Benzidine Orange

Dinitraniline Orange

VatDay Oranges

Chrome Greens

Chromium oxide

Hydrated Chromium Oxide

Copper Phthalocyanine Green

Organic Green Toners

Iron Blues

Copper Phthalocyanine blues

Ultramarine Blue

Organic Blue Toners

Indanthrone Blue

Carbazole Dioxazine Violet

Organic Violet Toner

Mineral Violet
Quinacridone Violet
Lithols
Para Reds
Toluidine Reds
Lithol Rubine
Chlorinated Para Red
Quinacridone Reds and Maroons
Red Iron Oxide
Cadmium Red and Maroons
"Mercadium" Reds and Maroons
Red Lead
Thioindigo Reds and Maroons
Arylide Maroons
Siennas, Ochers and Umbers
Carbon Blacks, Lampblacks and Bone Blacks
Tinting Properties of Colored Pigments

39.Paint Formulation

Art
Science
Raw Materials
Manufacture
Cost
Performance
Principles
Pigments Volume Concentration
Critical Pigment Volume Concentration
Pigment
Vehicle
Solvents and Driers
Formulation Example
Computer

40.Pigment Dispersion

Definition
Method.
Equipment
Mill Base Formulation
Setting Up a Laboratory Formula
Equipment setups and Limitations
Tank Configuration
Premixers
Conclusions

41.Emulsion Paints

Ingredients of An Emulsion Paint
Emulsion Formation
Stability of Emulsions

42.Maintenance Paints

Paint Types and Selection

Coating Types

Description By Generic Types

Principles of Effective Maintenance Painting

Substrate Materials

Effect of Exposure

Paint System and Application

43.Aluminum Pigments and Paints

History

Methods of Manufacture

Properties and Characteristics of The Pigment

Aluminium Pigments Products

Testing Aluminum Pigments

Aluminum Paints

Application Methods

44.Aerosol Coatings

Definition

Description

Components

Paint Formulation

45.Paint and Varnish Removers

Paint Removal

Solvent Paint and Varnish Removers

Nochlorinated Solvent Paint Removers

46.Machinery & Equipments for Paint & Varnish Industry

Triple Roll Mill

Sand Grinder

Colloid Mill

Amalgamator or Horizontal Mixer

Attrition Mill

Roll Mill

Cone Blender Mixer

Drum Type Mixer

Planetary Paste Mixer

Portable Stirrer

High Speed Dissolver

Steam Jacket Pans and Kettles

Emulsifiers

Filter Press

Unroll Mill

Sample Chapter:

Formulations

ENAMELS

Transparent Enamel

Melt 15 lbs. Of cent per pure Manila gum on fire. Then add 1 gallon superior quality of linseed oil heated to 400°C. Now remove it from fire and let is cool. To this cold mixture then add 3.5 gallons of turpentine oil.

To every gallon of the above mixture add 8 lbs. Zinc oxide crystals of good quality well grinded in paper varnish. To prepare this varnish 2 lbs. of damar is dissolved in half gallon cold turpentine oil.

To prepare Enamels in Different Colours

Following are given the mixtures of different pigments to prepare enamels of different colours. Transparent enamels mentioned above should be used equally in all the following formulas :-

	Black	
		lbs.
Lamp black		28
Carbon black		1
	Royal Blue	
		lbs.
Ultramarine blue		14
Whiting		7
China clay		7
	Sky Blue	
		lbs.
Zinc white		28
Chinese blue		0.5
	Chocolate	
		lbs.
Middle Indian Red		28
Lamp black		0.5
	Olive Green	
		lbs.
Middle brunswic green		28
Lamp black		0.5
	Sea Green	
		lbs.
Zinc white		28
Chinese blue		0.5
Lemon chrome		1.5

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