Synthetic Resin is typically manufactured using a chemical polymerization process. This process then results
in the creation of polymers that are more stable and homogeneous than naturally occurring resin. Since they
are more stable and are cheaper, various forms of synthetic resin are used in a variety of products such as
plastics, paints, varnishes, and textiles. There are various kinds of synthetic resins; acetal resins, amino
resins, phenolic resins, epoxy resins, fufuryl alcohol: resins, fluorocarbon resins, polyurethane resins, etc.
Resins are polymeric compound which are available in nature and are also manufactured by synthetic routes.
Some resins are also manufactured by partial modification of natural precursor polymer by chemical. The
classic variety is epoxy resin, manufactured through polymerization, used as a thermoset polymer for
adhesives and composites. Epoxy resin is two times stronger than concrete, seamless and waterproof.
Various thermoplastic thermosetting polymers, including elastomers, have been incorporated to modify the
properties for the cured epoxy resin products. Elastomers provide greater elongation and impact strength.
Polysulfides, the most commonly used elastomer to flexibilise epoxy resins. Heat resistant polymers are
employed for the various uses; heat flame resistant fibers plus ultra high strength, high modulus fibers; films,
laminating varnishes and wire enamels; structural adhesives and molding powders. The Synthetic Resin
Manufacturing industry initially enjoyed strong growth over its earlier history as plastics began to increasingly
replace traditional materials such as wood, leather and metal. Plastic is estimated to have been the most
used material globally.

The book basically deals with new raw materials for cost reduction of alkyds and unsaturated polyester,
amino resins, polyester based resins, enzymatic synthesis of phenolic copolymers, radiation curable hybrid
formulation, self polishing anti fouling, epoxy resins, epoxy resins from methyl epichlorohydrin, fillers,
reinforcements, and other additives, cardanol modified epoxy resins, baking coatings from epoxy derived
from cardanol, phenolic resins, polyurethane resins, aqueous polyurethane dispersion technology, heat
resistant resins, etc.
The resin have wide industrial uses like in lacquers, paints, textiles, varnishes, printing inks and cosmetic etc.
this book contains formulae, processes and applications of various resins. This book will be very resourceful
to new entrepreneurs, consultants, technical institutions, libraries and for those who wants to venture into this
field.
Contents

1. ACROLEIN RESINS
   Acrolein Monomer
   Physical Properties
   Chemical Properties
   Preparation
   Polymerization
   Free Radical Homopolymerization
   In Bulk and in Organic Media
   In Aqueous Medium
   Radical and Graft Copolymerization
   Properties of the Polymer Resin
   Physical Properties
   Structure
   Uses of the Polymers

2. ACRYLAMIDE RESINS
   Physical Properties of the Monomers
   Chemical Properties of the Monomers
   Manufacture of Monomers
   Polymerization
   Free Radical Polymerization in Solution
   Polyamide Formation
   Copolymerization
   Chemical Reactions of Polymers
   Uses

3. 2 CYANOACRYLIC ESTER RESINS
   Preparation of Monomeric Esters
   Properties of Monomeric Esters
   Polymerization of Monomeric Esters
   Free Radical Initiation
   Anionic Initiation
   Properties of Polymeric Esters

4. 2 HALO ACRYLIC ESTER RESINS
   Physical Properties of Monomers
   Chemical Properties of Monomers
   Polymerization
   Properties of Polymers
   Processing
   Uses
   Test Methods

5. ACRYLIC EPOXY URETHANE RESINS
   Introduction
   Experimental
   Raw Material
   Synthesis of Acrylic Resin
   Preparation of Epoxy Solution
   Preparation of Acrylic Epoxy Blends
6. LIGHT STABILIZER ACRYLIC RESINS
   Introduction
   Experimental
   Acrylic Polyol Resin Synthesis
   Polymer Bound Light Stabilizer Acrylic Resin Synthesis
   Coatings Compositions Containing Light Stabilized Acrylic Resins
   Characterization
   Results and Discussion
   Acrylic Polyol Properties and Formulations
   Film Properties
   Accelerated Weathering of Acrylic Bound HALS Coatings
   Accelerated Weathering of Acrylic Bound UVA Coatings
   Summary

7. ACETAL RESINS
   Preparation of polymers
   Old Polymers of Formaldehyde
   New Polymers of Formaldehyde
   Polymerization of Trioxane
   Polymerization Initiated by Irradiation
   Higher Aldehydes
   Other Aldehydes
   Properties of Aldehyde Polymers
   Polymers of Formaldehyde
   Physical Properties
   Chemical Properties
   Polymers of Other Aldehydes
   Processing of Formaldehyde Polymers
   Molding
   Other Methods of Processing
   Uses of Polymers of Formaldehyde
   Grades and Prices

8. ALKLENIMINE RESINS
   Chemical Reactions of the Monomer
   Polymerization of Alkylenimines
   Properties of Polyalklenimines
   Uses of Polyalklenimines
   Use in Paper
   Uses with Textiles
   Natural Fibres
   Synthetic Fibres
   Uses with Plastics
   Use as a Flocculating Agent
   Uses in Ion Exchange and Complexing
   Miscellaneous Uses
9. ALLENE RESINS
Properties of the Monomer
Preparation
Polymerization
Properties of Polyallenes
Copolymerization

10. ALLYL RESINS
Allyl Polymerization
Properties of Some Allyl Monomers

11. ALLYL S TRIAZINE RESINS
Allyl Cyanurates and Allyl Isocyanurates
Synthesis and Properties of Monomers
Polymerization
Homopolymerization
Copolymerization
Thermal Analysis of Homopolymers
Processing of Polymers
Properties of Polymers
Allylmelamines
Hexaallylamine
N,N Diallylmelamine
Allylamine Ethers

12. ALLYL ETHER RESINS
Physical Properties of Allyl Ether Monomers
Preparation of Allyl Ether Monomers
Allyl Ether Homopolymers
Polymerization
Physical and Chemical Properties
Uses
Allyl Ether Copolymers
Uses
Unsaturated Polyesters and Alkyds
Unmodified Allyl Ether Polyesters
Uses
Non oil Modified Polyester Resins
Uses
Oil Modified Polyesters
Polyurethane Elastomers
Reactions with Sulfur Compounds

13. ALLYL ESTER RESINS
Allyl Ester Monomers
Polymerization
Properties of Polymers
Processing
Molding Compounds
Reinforced Plastics
Decorative Laminates
Polymer Uses
Molded Parts
Wall Primers and Sealers
Interior Semigloss Enamels
Interior Gloss Enamels
Exterior Architectural Finishes
Enamel Primers or Undercoaters
Exterior Air Drying Topcoat Enamels
Miscellaneous Trade Sales Finishes
Chemically Resistant Paints
Noncoating Uses
Oil Free Alkyds of Hydroxylated Polyester
Nonpolluting Resins

15. ACRYLIC MODIFIED ALKYD RESINS
Traffic Paints
Procedure
Procedure
Procedure
Industrial Applications
Conclusion

16. NEW RAW MATERIALS FOR COST REDUCTION OF ALLKYDS AND UNSATURATED POLYESTER
TPTHL  A New Raw Material for Alkyds
Properties of TPTHL
Advantages of TPTHL
Disadvantages TPTHL
Polymer S: A New Raw Material for Unsaturated Polyester
Specification of Polymer S
Advantages of Polymer S
Disadvantages of Polymer S
Synthesis of Unsaturated Polyester by Using Polymer S Reaction Charge
Conclusion

17. AMINO RESINS
Raw Materials
Urea
Melamine
Formaldehyde
Other Materials
Chemistry of Resin Formation
Manufacture
Typical Resin Formulation and Techniques
Parts List
Urea Formaldehyde Resins
Dimethylolurea
High Solids Urea Formaldehyde Adhesive Resin
Laboratory Procedure
Alkylation or Etherification
Butylated Urea Resin
Solubility and Compatibility
Mineral Spirits Tolerance
Protective Coating Resin with High Mineral Spirits Tolerance
Laboratory Procedure
Methylated Urea Formaldehyde Textile Resins
18. POLYESTER BASED RESINS

Introduction
Experimental
Solvent Borne Coil Coating Resin
Water Borne Coil Coating Resin
Coating BAL 389
New Glycol Formulations
Conclusion

19. ENZYMATIC SYNTHESIS OF PHENOLIC COPOLYMERS
Introduction
Mechanism of Phenolic Polymerisation
Materials and Methods
Material Sources
Experimental
A) P Phenyl Phenol Cardphenol Copolymer Synthesis
B) P Phenyl Phenol Aniline Copolymer Synthesis
Results and Discussion
IR Interpretation
A) P Phenylphenol Cardphenol Copolymer
B) P Phenylphenol Aniline Copolymer

20. PROTECTION AGAINST ULTRAVIOLET LIGHT WITH UVALINK ADP
Introduction
Ultraviolet Light as a Component of the Solar Spectrum
Influence of Geographical and Meteorological Conditions
Interaction of Light and Matter
Effects of Solar UV radiation
UV Stabilizers
Chemical Classes of UV Stabilizers
Markets and Producers
UVAL INK ADP
How UVALINK ADP Works
Conventional UV Stabilizers Behave Totally Differently

21. RADIATION CURABLE HYBRID FORMULATION
Introduction
Results and Discussion
Diluents
Chemistry
Photoinitiator System
Viscosity
Cure Speed
Humidity
Cured Film Properties
Diluent Comparison
Properties vs Cure Speed

22. MICROGEL EMULSIONS
Introduction
Microgels are Prepared
Microgels by Radical Initiated Polymerisation in Emulsion
Experimental
Apparatus
Preparation of Monomer/Pre Emulsion
Reaction Flask Charge
Procedure
Preparation of Emulsions
Characterization and Analysis
23. SELF POLISHING ANTIFOULINGS

Marine Fouling
Types of Foulings
Fouling on Ship Hulls
Underwater Hull Roughness
Measurement of Average Hull Roughness
Limitation of Hull Roughness Measurement
Antifoulings
Soluble Matrix Paints
Insoluble Matrix Paints
Self Polishing Paints
Organotin Polymers

History and Development
Basic Characteristic Required
Organotin Monomers

Synthesis
Synthesis of Organotin Monomer
Testing of Prepared Organotin Monomer
Polymerization
Copolymerization
Tributyltin Acrylate/Second Monomer
Tributyltin Methacrylate/Second Monomer
Influence of Solvents on Copolymerization
Modifications of Functional Polymers Route B.

Determination of Polymer Composition
Characteristics of Organotin Polymers
Influence of the Presence of Diorganotin Impurities During Synthesis

Self Polishing A/F. Paint Composition and Role of Ingredients
Organotin Polymer
Sea Water Soluble Pigments
Retarders
Reinforcing Bioactive Materials
Other Ingredients
Viscosity Control of Self Polishing Paints

Dissolution/Erosion Mechanisms
Binder Phase
Pigment Phase
Reactions Which Affect the Pigment Phase
Reactions Which Affect the Binder Phase
Equilibrium Between Pigment Phase and the Binder Phase
Uniform Distribution of Toxins in the Paint Film
Influence of Various Parameters on the Polishing Rate
Internal
External
Testing of Self Polishing Antifoulings
Dynamic Testing
Leaching Rate Measurement
24. EPOXY RESINS

Introduction

Synthesis of Resin Intermediates

Resins from Epichlorohydrin and Bisphenol A

Synthesis of Resin having Average Molecular Weight of about 370 and 1,2 Epoxy Equivalency of 1.85

Synthesis of Medium and High Molecular Weight Epoxy Resins

Cycloaliphatic Epoxies

Epoxidized Polyolefins

Epoxidised Oils and Fatty Acid Esters

Aliphatic Cycloaliphatic Glycidyl Type Resins

Glycidyl Ethers

Glycidyl Esters

Epoxy Novolac Resins

Resins from Phenols other than Bisphenol A

Resins from Aliphatic Polyols

Resins from Long Chain Acids

Fluorinated Epoxy Resins

Epoxy Resins from Methylepichlorohydrin

Miscellaneous Epoxy Resins

Epoxy Esters

Water Borne Epoxy Resins and Derivatives

Diluents and Modifiers

Diluents

Flexibilisers

Bituminous Modifiers

Synthetic Polymers as Modifiers

Fillers, Reinforcements, and Other Additives

Epoxide Reactions and Curing Mechanisms

Catalytic Curing Agents

Reactive Curing Agents

Curing of Epoxy Esters

25. CARDANOL MODIFIED EPOXY RESINS

Introduction

Experiments

Evaluation of Resins Prepared

Reactions

Preparation of Card Bisphenol

Homopolymerisation of Cardanol

Self Condensation of Phenol

Chemical Reaction Investigation

Process Modification

Qualitative Determination of Purity of Desired Product

Investigation using Boron Trifluoride as Cationic Condensing Agent

Removal of Excess of Phenol

Baking Coatings from Epoxy Derived from Cardanol

Air Drying Coatings from Acrylated Card Bisphenol Epoxies

Conclusion
26. FUFURYL ALCOHOL : RESINS

Chemistry
Principal Uses
Foundry Resins
Mortars, Grouts and Cements
Laminating Resins
Furan Polymer Concrete
Impregnating Solution and Carbon Binder
Epoxy Resins
Phenolic and Urea Resin Modification
Oil Well Sand Consolidation
Corrosion Resistant Fibre Reinforced Plastic (FRP)
Low Fire Hazard Foams
Impregnants
Developmental Impregnants
Furfural Acetone Resin Impregnant
Resin Pitch Impregnants
Alkaline Curing Resin Pitch Impregnant
Acid Curing Resin Pitch Impregnant
Solvent Applications
Chemical Synthesis
Health and Safety
Furan & Tetrahydrofurfuryl Alcohol : Resins Furan
Chemical Properties
Peroxide Formation
Uses
Toxicology
Tetrahydrofurfuryl Alcohol (THFA)
Chemical Properties
Manufacture
Applications in Stripping Formulations
Paint, Varnish, Caulk etc.
Consumer Cleaning Products
Improved Products for Industrial and Commercial Cleaning Applications
Use in Approved Biocide and Pesticide Formulations
For Insect Repellents, Insecticides, and Herbicides
Applications in Polymers, Resins and Elastomers
Cleaning, Dyeing, and Finishing
Applications as a Plasticizer and Finishing Agent
Other Uses
2,5 Bis (Hydroxymethyl) Furan
Manufacture
Applications

27. FLUOROCARBON RESINS

Tetrafluoroethylene Polymers
Polytetrafluoroethylene
Properties
Methods of Manufacture
Commercial Grades and Specifications
Analysis of Polytetrafluoroethylene
Characterization by Infrared Spectroscopy
Specification Tests
Procedure
Melting Point
Procedure
Specific Gravity
Procedure
Apparent Density
Procedure
Particle size
Procedure
Specific Surface Area
Water Content
Procedure
Thermal Instability
Color
Tetrafluoroethylene Hexafluoropropylene Copolymer
Properties
Methods of Manufacture
Commercial Grades and Specifications
Analysis of Tetrafluoroethylene Hexafluoropropylene Copolymer
Other Fluorine Containing Polymers
Polychlorotrifluoroethylene
Chlorotrifluoroethylene Vinylidene Fluoride Copolymer
Poly(vinyl Fluoride)
Poly(vinylidene Fluoride)
Vinylidene Fluoride Hexafluoropropylene Copolymer
Method of Analysis
Zero Strength Time
Procedure
Volatiles
Procedure
Mooney Viscosity
Procedure
Physical Test for Cured Elastomers
Procedure

28. PHENOLIC RESINS
The Chemistry of Phenolic Resins
Factors Influencing Resin Formation
The Nature of the Catalyst
Base Catalysed Phenolic Resins
Acid Catalysed Phenolic Resins
Concentration of the Catalyst
The Phenol Aldehyde Ratio
The Chemical Nature of the Phenol and the Aldehyde
The Temperature and Reaction Time
Modifying Agents, Fillers, and Extenders
The Structure of Phenolic Resins
Formation of Phenol Alcohols
Formation of Methylene Bridges
Formation of Dibenzyl Ethers
Formation of Quinone Methides
Raw Materials
Phenols
Cashew Nut Shell Liquid (CNSL)
Aldehydes
Paraformaldehyde
Trioxane and Cyclic Formals
Hexamethylenetetramine (HMTA)
Furfural
Other Aldehydes
Fillers for Phenolic Moulding Powders
Primary Requirements
Secondary Requirements
Types of Filler
Organic Filler
Lignin and Lignin Extended Fillers Proteinaceous Fillers
Carbon Fillers
Mineral Fillers
Thermal Degradation
Modified and Thermal Resistance Resins
Etherification Reactions
Esterification Reactions
Heavy Metal Modified Resins
Chemical Resistance
Resistance to Microorganism
Oil Soluble Phenolic Resins
Composite Wood Material
Moulding Compounds
Applications
Heat and Sound Insulation Materials
Industrial Laminates and Paper Impregnation
Coatings
Foundry Resins
Precoated Resin Shell Sand
Precoated Resin Shell Sand : Warm Coating Process
Precoated Resin Shell Sand : Hot Coating Process
Phenolic Resin as Ion Exchange Resin
Abrasive Materials
Formulation for the Manufacturing of Roughing Wheels
Friction Materials
Phenolic Resin in Rubbers and Adhesives

29. POLYURETHANE RESINS
Polyurethanes Resins
Chemistry
Raw Materials
Isocyanates
Tolylene Diisocyanate (TDI)
4,4 Diphenylmethane Diisocyanate (MDI)
Hexamethylene Diisocyanate (HDI)
Other Diisocyanates used in Coating Systems
Hydroxy Component
Hazards of Isocyanates
Classification of Polyurethanes
Urethane Oils and Urethane Alkyds
Moisture Cured Urethanes
Storage Stability
Cross Linking Density
Drying Time
Catalysts
Solvents
Pigmentation
Additives
Film Properties and Uses
Typical Formulations
Manufacture
Blocked Isocyanate Systems
Two Component Catalyst Cured Polyurethanes
Two Component Polyol Type Polyurethanes
Formulation
Formulation

30. AQUEOUS POLYURETHANE DISPERSION TECHNOLOGY
Introduction
Concept of Aqueous PUD
Chemical Classification
Preparation Procedures
Chemical Crosslinking
Factors Influencing Performance
Recent Advantages
Combination of PUD with Acrylics
Characterisation of Aqueous PUDs
Applications
The future

31. HEAT RESISTANT RESINS
Thermal Stability
Synthesis and Properties
Simple Condensation Polymers
Heterocyclic Polymers
Health and Safety Factors
Applications
Fibres
Films
Varnishes
Adhesives
Molding Powders

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