



**Manufacturing of
Synthetic Resins
with Formulation**

Introduction

Synthetic resins are materials with a property of interest that is similar to natural plant resins: they are viscous liquids that are capable of hardening permanently. Otherwise, chemically they are very different from the various resinous compounds secreted by plants. Synthetic resins comprise a large class of synthetic products that have some of the physical properties of natural resins but are different chemically. Synthetic resins are not clearly differentiated from plastics.

In modern industry natural resins have been almost entirely replaced by synthetic resins, which are divided into two classes, thermoplastic resins, which remain plastic after heat treatment, and thermosetting resins, which become insoluble and infusible on heating. Thermoplastic resin softens repeatedly by heating. Thermosetting resin, on the other hand, hardens only once when heated. Thermoplastics produced by the local industry include Polystyrene (PS), Polyvinyl Chloride (PVC), Alkyds and Polyester Fiber, while those of thermosetting resins include Phthalic Anhydride, Aluminum Paste Resin, Adhesive Resin, Acrylic Resin Urea- and Phenol-Formaldehyde, and Colored Pellets.

Thermosetting and thermoplastic resins respectively fall under two broad industrial categories. Thermosetting resins fall under the surface coating branch of the chemicals industry. Thermoplastic resins fall under plastic and plastic-based products. The surface coating chemicals branch includes the manufacture of paint, adhesives, printing ink, and specialty resins of the thermosetting type.

Synthetic resins required pigments to be grinded, which provides excellent transparency and pigment wetting. The pigment concentrate must be let down with a synthetic resin that will provide the finished ink or coating attributes.

These attributes may require a synthetic resin to have water resistance, alkali resistance and solvent resistance, as well as adhesion to the designated substrate.

Thermoplastic and thermosetting resins are used in industrial, consumer, and agricultural products. Resins are used by downstream industries such as those manufacturing plastic products, paints, and adhesives. Also included in the synthetic resin industry are compounders that blend basic resins with additives to produce concentrates and compounds for use by these same downstream industries.

The most commonly used type of synthetic resin is epoxy resin. This stuff is made through polymerization and polycondensation reactions. They are used as a thermoset polymer that is used for adhesives. Epoxy resins are extremely strong. It is even stronger than concrete, while also remaining waterproof.

Acetal resin is another synthetic resin. When compared to other similar resins, one can see the simple chain structure. This resin is used to make parts that have a high stiffness, low friction, and amazing dimensional stability.

Acrylic resins, manufactured by the polymerization of acrylates or methacrylates, find use in several applications ranging from paints and coatings to automotive and construction. Demand for acrylic resins is dependent on the health of the economy and dynamics in various end-use and downstream markets such as paints and coatings, textiles, paper and adhesives in addition to detergents, personal care products, superabsorbent polymers, and wastewater treatment chemicals, among others.

Table of 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. 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. 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

Preparation of Paints

Preparation of Test panels
Testing of Coatings
Results and Discussions
Conclusions

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

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. ALKYLENIMINE RESINS

Chemical Reactions of the Monomer

Polymerization of Alkylenimines

Properties of Polyalkylenimines

Uses of Polyalkylenimines

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
Allyl melamines
Hexaallyl melamine
N,N Diallyl melamine
Allyl melamine 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

Reinforced Plastic Laminates

Decorative Laminates

Varnishes and Sealants

Monomer Uses

Diethylene Glycol Bis(Allyl Carbonate) Polymers

Properties of the Monomer

Manufacture of the Monomer

Polymerization Methods

Properties and Uses of Polymers

14. ALKYD RESINS

Introduction

Classification

Drying

Nondrying

Synthesis

Fatty Acid Method

Alcoholysis or Monoglycerides Method

Acidolysis Process

Etherification

Addition Reaction of Unsaturated Monobasic Fatty Acids

Addition Reactions with Other Unsaturated Alkyd

Ingredients

Reactions During Coating Formation with Drying Alkyds

Reactions During Coating Formation in Alkyd Blends

Raw Materials

Polyhydric Alcohols

Polybasic Acids

Fatty Acids and Oils

Driers

Modifiers

Blending Agents

Fatty Acid Method

Fatty Acid Oil Method
Oil Dilution Method
Fusion versus Solvent Processing
Processing and Equipment Considerations Quality Control
and Specifications
Use of Alkyds in Industrial Finishes
Alkyd Cellulose Nitrate Blends for Lacquers
Improved Adhesion
Gloss
Depth of Finish
Build
High Solids Lacquers
Shrinkage
Solvent Release
Heat Sealing
Cost
Industrial Alkyd Amino Resin Metal Finishes

Appliance Finishes

Alkyd Amino Resin Automotive Finishes

Use of Alkyds in Trade Sales Finishes

Interior Architectural Finishes

Alkyd Flat Wall Paints

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
Laboratory Procedure
Urea Formaldehyde Particle Board Adhesive
Laboratory Procedure
Anionic Urea Resin
Cationic Resins
Cationic Urea Resin
Gap Filling Adhesives
Gap Filling Urea Adhesive
Melamine Formaldehyde Resins

Dimethylolurea

Butylated Melamine Resins

Butylated Melamine Protective Coating Resin

Laboratory Procedure

Protective Coating Resin with High Mineral Spirits Tolerance

Laboratory Procedure

Chlorine Resistant Melamine Resin

Laboratory Procedure

Trimethoxymethyl Melamine

Laboratory Procedure

Hexamethoxymethyl Melamine

Laboratory Procedure

Melamine Resin Molding Powder

Melamine Resin Acid Colloid

Control of the Extent of the Reaction

Free Formaldehyde Estimation

Viscosity Tests

Solubility Tests

Cure Tests

Urea versus Melamine Resins

Package Stability

Competitive Product Analysis

Uses

Chemical Modification for Water Soluble Products

Chemical Modification for Oil Soluble Products

Ethylene Urea

Propylene Urea

Triazone

Methylated Uron Textile Resins

Laboratory Procedure

Uron Resins

Glyoxal Resins

Miscellaneous Resins

Amino Resins in the Paper Industry

Formulations for Regular and HE Colloids

Toxicity

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

Paint Study

Paint Preparation

Characterization of Paint

Results and Discussions

Conclusions

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 Antifouling
Dynamic Testing
Leaching Rate Measurement
Various Types of Self Polishing Paint
Environmental Consideration
Scope and Future Trends

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 Methylenechlorohydrin
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 Manufacture³
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

Procedure

Specific Surface Area

Water Content

Procedure

Procedure

Thermal Instability

Color

Tetrafluoroethylene Hexafluoropropylene Copolymer

Methods of Manufacture

Commercial Grades and Specifications

Analysis of Tetrafluoroethylene Hexafluoropropylene Copolymer

Polychlorotrifluoroethylene

Chlorotrifluoroethylene Vinylidene Fluoride Copolymer

Poly(vinyl Fluoride)

Poly(vinylidene Fluoride)

Vinylidene Fluoride Hexafluoropropylene Copolymer

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

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

Tags

Alkyl and hydroxy alkyl alkylcellulose, Applications of Synthetic Resins, Best small and cottage scale industries, Business Plan for a Startup Business, Business start-up, Emulsion polymers manufacture, Formulation of Synthetic Resins, Formulation of Resins, Great Opportunity for Startup, How to Manufacture Synthetic Resins, How to start a successful synthetic resin business, How to start a synthetic resin production Business, How to start a synthetic resin production?, How to Start Emulsions of Synthetic Resin Business, How to start synthetic resin production Industry in India, Indene-coumarone resins, Manufacturing process of Acrylonitrile Resins, Manufacturing process of Actel Resins, Manufacturing process of Alkyd Resin, Manufacturing process of Amino Resins, Manufacturing process of Casein Resins, Manufacturing process of Epoxy Resins, Manufacturing process of Ion-exchange Resins, Manufacturing process of Phenolic resins, Manufacturing process of Polyamide Resins, Manufacturing process of Polycarbonates Resins, Manufacturing process of Polyesters, Manufacturing process of Polyurethane resins, Manufacturing process of Polyvinyl Acetate Solid Resins, Manufacturing process of Silicone resins, Modern small and cottage scale industries, Most Profitable Synthetic resin Business Ideas, New small scale ideas in synthetic resin production industry, Process of making synthetic resin adhesive, Processing of synthetic resin, Production of a synthetic resin, Profitable small and cottage scale industries, Profitable Small Scale synthetic resin Manufacturing, Project for startups, Resin Types and Production, Rosin & rosin derivatives, Rubber resins Formulation,

Setting up and opening your synthetic resin Business, Shellac resins, Small scale Commercial synthetic resin making, Small Scale Synthetic resin manufacturing Projects, Small scale synthetic resin production line, Small Start-up Business Project, Start Up India, Stand up India, Starting a synthetic resin production Business, Start-up Business Plan for synthetic resin production, Startup ideas, Startup Project, Startup Project for synthetic resin production, Startup project plan, Sucrose resins, Synthetic resin Based Profitable Projects, Synthetic resin Based Small Scale Industries Projects, Synthetic Resin Business, Synthetic resin Making Small Business Manufacturing, Synthetic Resin Manufacturing, Synthetic resin manufacturing Industry in India, Synthetic resin manufacturing process, Synthetic resin manufacturing Projects, Synthetic resin method, Synthetic resin production, Synthetic resin production Business, Synthetic Resin Technology with formulation, Synthetic resin uses, Synthetic Resins, Synthetic Resins - Resin Chemical, Synthetic Resins and Polymer Emulsion, Synthetic Resins Technology book, Technological advances in the manufacture of resins, Technology of Synthetic Resins, Terpene resins, Types and applications of synthetic resin, Uses of rosin in the polymer field, Water-reducible resins

Niir Project Consultancy Services (NPCS)
can provide Process Technology Book on
Synthetic Resins

See more

<https://goo.gl/ILq3wL>

<http://goo.gl/q9PGvP>

<http://goo.gl/n8xIFT>

Visit us at

www.entrepreneurindia.co

**Take a look at
Niir Project Consultancy Services
on #Street View**

<https://goo.gl/VstWkd>

*Locate us on
Google Maps*

<https://goo.gl/maps/BKkUtq9gevT2>

OUR CLIENTS

Our inexhaustible Client list includes public-sector companies, Corporate Houses, Government undertaking, individual entrepreneurs, NRI, Foreign investors, non-profit organizations and educational institutions from all parts of the World. The list is just a glimpse of our esteemed & satisfied Clients.

Click here to take a look
<https://goo.gl/G3lCjV>

Free Instant Online Project Identification & Selection Search Facility

Selection process starts with the generation of a product idea. In order to select the most promising project, the entrepreneur needs to generate a few ideas about the possible projects.

Here's we offer a best and easiest way for every entrepreneur to searching criteria of projects on our website www.entrepreneurindia.co that is "Instant Online Project Identification and Selection"

NPCS Team has simplified the process for you by providing a "[Free Instant Online Project Identification & Selection](#)" search facility to identify projects based on multiple search parameters related to project costs namely: Plant & Machinery Cost, Total Capital Investment, Cost of the project, Rate of Return% (ROR) and Break Even Point % (BEP). You can sort the projects on the basis of mentioned pointers and identify a suitable project matching your investment requisites.

Click here to go

<http://www.entrepreneurindia.co/project-identification>

Contact us

Niir Project Consultancy Services

106-E, Kamla Nagar, Opp. Spark Mall,

New Delhi-110007, India.

Email: npcs.ei@gmail.com , info@entrepreneurindia.co

Tel: +91-11-23843955, 23845654, 23845886, 8800733955

Mobile: +91-9811043595

Fax: +91-11-23845886

Website : www.entrepreneurindia.co , www.niir.org

Take a look at NIIR PROJECT CONSULTANCY SERVICES on

#StreetView

<https://goo.gl/VstWkd>



NIIR PROJECT CONSULTANCY SERVICES

An ISO 9001:2008 Company

Who are we?

- *One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services*
- *We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad*



We at NPCS want to grow with you by providing solutions scale to suit your new operations and help you reduce risk and give a high return on application investments. We have successfully achieved top-notch quality standards with a high level of customer appreciation resulting in long lasting relation and large amount of referral work through technological breakthrough and innovative concepts. A large number of our Indian, Overseas and NRI Clients have appreciated our expertise for excellence which speaks volumes about our commitment and dedication to every client's success.



We bring deep, functional expertise, but are known for our holistic perspective: we capture value across boundaries and between the silos of any organization. We have proven a multiplier effect from optimizing the sum of the parts, not just the individual pieces. We actively encourage a culture of innovation, which facilitates the development of new technologies and ensures a high quality product.



What do we offer?

- *Project Identification*
- *Detailed Project Reports/Pre-feasibility Reports*
- *Business Plan*
- *Industry Trends*
- *Market Research Reports*
- *Technology Books and Directory*
- *Databases on CD-ROM*
- *Laboratory Testing Services*
- *Turnkey Project Consultancy/Solutions*
- *Entrepreneur India (An Industrial Monthly Journal)*

How are we different ?

- *We have two decades long experience in project consultancy and market research field*
- *We empower our customers with the prerequisite know-how to take sound business decisions*
- *We help catalyze business growth by providing distinctive and profound market analysis*
- *We serve a wide array of customers , from individual entrepreneurs to Corporations and Foreign Investors*
- *We use authentic & reliable sources to ensure business precision*

Our Approach

Requirement collection

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

Report Compilation

Who do we serve?

- *Public-sector Companies*
- *Corporates*
- *Government Undertakings*
- *Individual Entrepreneurs*
- *NRI's*
- *Foreign Investors*
- *Non-profit Organizations, NBFC's*
- *Educational Institutions*
- *Embassies & Consulates*
- *Consultancies*
- *Industry / trade associations*

Sectors We Cover

- *Ayurvedic And Herbal Medicines, Herbal Cosmetics*
- *Alcoholic And Non Alcoholic Beverages, Drinks*
- *Adhesives, Industrial Adhesive, Sealants, Glues, Gum & Resin*
- *Activated Carbon & Activated Charcoal*
- *Aluminium And Aluminium Extrusion Profiles & Sections,*
- *Bio-fertilizers And Biotechnology*
- *Breakfast Snacks And Cereal Food*
- *Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling*

Sectors We Cover *Cont...*

- *Bamboo And Cane Based Projects*
- *Building Materials And Construction Projects*
- *Biodegradable & Bioplastic Based Projects*
- *Chemicals (Organic And Inorganic)*
- *Confectionery, Bakery/Baking And Other Food*
- *Cereal Processing*
- *Coconut And Coconut Based Products*
- *Cold Storage For Fruits & Vegetables*
- *Coal & Coal Byproduct*

Sectors We Cover *Cont...*

- *Copper & Copper Based Projects*
- *Dairy/Milk Processing*
- *Disinfectants, Pesticides, Insecticides, Mosquito Repellents,*
- *Electrical, Electronic And Computer based Projects*
- *Essential Oils, Oils & Fats And Allied*
- *Engineering Goods*
- *Fibre Glass & Float Glass*
- *Fast Moving Consumer Goods*
- *Food, Bakery, Agro Processing*

Sectors We Cover *Cont...*

- *Fruits & Vegetables Processing*
- *Ferro Alloys Based Projects*
- *Fertilizers & Biofertilizers*
- *Ginger & Ginger Based Projects*
- *Herbs And Medicinal Cultivation And Jatropha (Biofuel)*
- *Hotel & Hospitality Projects*
- *Hospital Based Projects*
- *Herbal Based Projects*
- *Inks, Stationery And Export Industries*

Sectors We Cover *Cont...*

- *Infrastructure Projects*
- *Jute & Jute Based Products*
- *Leather And Leather Based Projects*
- *Leisure & Entertainment Based Projects*
- *Livestock Farming Of Birds & Animals*
- *Minerals And Minerals*
- *Maize Processing(Wet Milling) & Maize Based Projects*
- *Medical Plastics, Disposables Plastic Syringe, Blood Bags*
- *Organic Farming, Neem Products Etc.*

Sectors We Cover *Cont...*

- *Paints, Pigments, Varnish & Lacquer*
- *Paper And Paper Board, Paper Recycling Projects*
- *Printing Inks*
- *Packaging Based Projects*
- *Perfumes, Cosmetics And Flavours*
- *Power Generation Based Projects & Renewable Energy Based Projects*
- *Pharmaceuticals And Drugs*
- *Plantations, Farming And Cultivations*
- *Plastic Film, Plastic Waste And Plastic Compounds*
- *Plastic, PVC, PET, HDPE, LDPE Etc.*

Sectors We Cover *Cont...*

- *Potato And Potato Based Projects*
- *Printing And Packaging*
- *Real Estate, Leisure And Hospitality*
- *Rubber And Rubber Products*
- *Soaps And Detergents*
- *Stationary Products*
- *Spices And Snacks Food*
- *Steel & Steel Products*
- *Textile Auxiliary And Chemicals*

Sectors We Cover *Cont...*

- *Township & Residential Complex*
- *Textiles And Readymade Garments*
- *Waste Management & Recycling*
- *Wood & Wood Products*
- *Water Industry(Packaged Drinking Water & Mineral Water)*
- *Wire & Cable*

Contact us

Niir Project Consultancy Services

106-E, Kamla Nagar, Opp. Spark Mall,

New Delhi-110007, India.

Email: npcs.ei@gmail.com , info@entrepreneurindia.co

Tel: +91-11-23843955, 23845654, 23845886, 8800733955

Mobile: +91-9811043595

Fax: +91-11-2385886

Website : www.entrepreneurindia.co , www.niir.org

Take a look at NIIR PROJECT CONSULTANCY SERVICES on

#StreetView

<https://goo.gl/VstWkd>



Follow Us



➤ <https://www.linkedin.com/company/niir-project-consultancy-services>



➤ <https://www.facebook.com/NIIR.ORG>



➤ <https://www.youtube.com/user/NIIRproject>



➤ <https://plus.google.com/+EntrepreneurIndiaNewDelhi>



➤ https://twitter.com/npcs_in



➤ <https://www.pinterest.com/npcsindia/>



THANK YOU!!!

For more information, visit us at:

www.entrepreneurindia.co

