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Epoxy Resins Technology Handbook (Synthesis, Epoxy Resin Adhesives, Epoxy Coatings) with Manufacturing Process and Machinery Equipment Details (3rd Edition)

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Description

Epoxy is a term used to denote both the basic components and the cured end products of epoxy resins, as well as a colloquial name for the epoxide functional group. Epoxy resin are a class of thermoset materials used extensively in structural and specialty composite applications because they offer a unique combination of properties that are unattainable with other thermoset resins.

Epoxies are monomers or prepolymers that further reacts with curing agents to yield high performance thermosetting plastics. They have gained wide acceptance in protecting coatings, electrical and structural applications because of their exceptional combination of properties such as toughness, adhesion, chemical resistance and superior electrical properties. Epoxy resins are characterized by the presence of a three membered cycle ether group commonly referred to as an epoxy group 1, 2-epoxide, or oxirane. The most widely used epoxy resins are diglycidyl ethers of biphenyl-A derived from biphenyl-A and epichlorohydrin.

The market of epoxy resins are growing day by day. Today the total business of this product is more than 100 crores. Epoxy resins are used for about 75% of wind blades currently produced worldwide, while polyester resins account for the remaining 25%. A standard 1.5-MW (megawatt) wind turbine has approximately 10 tonnes of epoxy in its blades. Traditionally, the markets for epoxy resins have been driven by demand generated primarily in areas of adhesives, building and civil construction, electrical insulation, printed circuit boards, and protective coatings for consumer durables, amongst others.

The major contents of the book are synthesis and characteristics of epoxy resin,

manufacture of epoxy resins, epoxide curing reactions, the dynamic mechanical properties of epoxy resins, physical and chemical properties of epoxy resins, epoxy resin adhesives, epoxy resin coatings, epoxy coating give into water, electrical and electronic applications, analysis of epoxides and epoxy resins and the toxicology of epoxy resins and photographs of machinery with suppliers contact details.

A total guide to manufacturing and entrepreneurial success in one of today's most epoxy resin industry. This book is one-stop guide to one of the fastest growing sectors of the epoxy resin industry, where opportunities abound for manufacturers, retailers, and entrepreneurs. This is the only complete handbook on the commercial production of epoxy resin product. It serves up a feast of how-to information, from concept to purchasing equipment.

Content

Table of Contents

1. Synthesis and Characteristics of Epoxy Resin

Introduction

Structure of Epoxides

Epoxidation of Unsaturated Hydrocarbons

Catalytic Oxidation of Ethylene and Higher Olefins

Epoxidation by Peroxy Acids and Their Esters

Preparation of Peroxy Acids

In Situ Epoxidation

The Epoxidation Mechanism

Unsaturated Materials

Epoxidation by Inorganic Peroxy Acids

Epoxidation with Aliphatic and Aromatic Hydrocarbon Hydroperoxides

Epoxidation with Chromic Acid and Chromyl Compounds

Biological Epoxidation

Dehydrohalogenation of Substituted Hydroxyl Compounds

The Epoxidation Mechanism

Halohydrin Formation

Epoxides from Epichlorohydrin

Glycidyl Ethers

Glycidyl Esters

Nitrogen-Containing Epoxides

Thioglycidyl Epoxides

Silicon-Containing Epoxides
Organophosphorus Epoxides
Halogen-Containing Epoxides
Epoxides from Hydroxy Sulfonates or Halogenated Acetates
Epoxides from Glycols
Epoxidation by Condensation
Darzens Glycidic Ester Condensations
Epoxides from Ylids
Epoxides from Halogenated Ketones and Nickel Carbonyl
Epoxides from the Reaction of Diazomethane with Aldehydes or Ketones
Epoxides Containing Unsaturation
Conclusions

2. Manufacture of Epoxy Resins

Raw Materials
Manufacture
Plant Location
Machinery Needed
Profit

3. Epoxide-Curing Reactions

The Effect of Epoxide Structure on Reactivity with Curing Agents
The Mechanism of the Curing Reaction

Polyaddition Reactions

Polyamines
Polyamides
Polyureas
Polyurethanes
Polyisocyanates
Polymercaptans
Polyhydric Alcohols
Polyphenols
Polycarboxylic Acids
Polybasic Acid Anhydrides
Silanes and Silanols
Others

Polymerization

Anionic Catalysts
Cationic Catalysts

4. The Dynamic Mechanical Properties of

Epoxy Resins
Basic Parameters

The Glassy Transition and Dynamic Mechanical Dispersion

Temperature and Frequency Interdependence

Experimental

Results and Discussion

Standard Measurements

Dynamic Measurements

Comparison of Results

Treatment by Reduced Variables

Conclusions

5. Physical and Chemical Properties of

Epoxy Resins

Solubility and Surface Properties

Network Structure and Physical Properties

Aging and Chemorheology

Bisphenol a Epoxy Homopolymers and Copolymers

Thermal Transition Effects

Dynamic Mechanical Response

Relaxation and Fracture Properties

Properties Compared with Elastomers and Thermoplastics

6. Epoxy Resin Adhesives

Introduction

Theories of Adhesion and Adhesive-joint Strength

Wetting and Spreading Phenomena

Boundary-Layer Theory

Surface-Attachment Theory of Adhesive-joint Strengths

Stress Distribution in Adhesive Joints

Rheological Aspects of Adhesives

Unified Interpretation of Adhesive-joint Strengths

Physical and Mechanical Aspects of Epoxy-Resin Adhesives

Dynamic Mechanical Techniques

Mechanical Behavior of Epoxy Adhesives During Joint Formation

Strength of Adhesive Materials

Chemical Aspects of Epoxy-based Adhesives

Curing Agents for Bisphenol A Epoxy Adhesives

Modifiers for Bisphenol A Epoxy Adhesives

Adhesives Based on Other Epoxy Materials

Technological Properties of Epoxy-adhesive Systems

Cure and Thermal Softening Behavior of Epoxy Adhesives

Stress and Environmental Durability of Adhesive Joints

Applications of Epoxy Adhesives

Future Prospects

7. Epoxy Resin Coatings

Classification of Epoxy-Resin Coatings

Epoxy Resins Commonly Used in Coatings

Epoxy-Resin Esters

Esters Produced from Solid Epoxy Resins

General Remarks

Formulation Latitude

Esters Produced from Liquid Epoxy Resins

Precatalyzed Liquid Epoxy Resin for the Production of Solid Epoxy Resins and Epoxy-Resin Esters

Cooking Procedure

“Two-Step” Liquid-Epoxy-Resin Route to Epoxy-Resin Esters

Cooking Procedure

Solid-Epoxy-Resin Solution Coatings

Cold-Cured Epoxy-Resin Systems

Polyamine Curing Agents

Polyamine-Adduct Curing Agents

Polyamide-Resin Curing Agents

Polyamide-Adduct Curing Agents

Tertiary Amine Curing Agents

Industrial Maintenance Coatings Based on Cold-Cured Epoxy-Resin Systems

High-Film-Build Cold-Cured Epoxy-Resin Coatings

Application Instructions

Manufacturing Instructions

Epoxy Baking Finishes

Epoxy-Phenolic Coating Systems

Epoxy-Urea-Formaldehyde Resin Coating Systems

Epoxy-Thermosetting Acrylic Coating Systems

Liquid Epoxy Resins in Solventless and Super-High-Solids Systems

Special Application Equipment and Formulation for Solventless Systems

Manufacturing Instructions

Application

Ketimine Curing Agents

Manufacturing Instructions

Application

Curing Characteristics

Powder Coatings

Application Equipment

Epoxy-Resin Powder-Coating Formulations

Fusion-Produced Epoxy-Resin Powders

Manufacturing Instructions

Applications Instructions

Dry-blended Epoxy-Resin Powders

Manufacturing Instructions

Application Instructions

Properties and Applications

Thermoplastic Epoxy Resins

Zinc-Rich and General Purpose Shop Primers

Manufacturing Instructions

Application Instructions

Manufacturing Instructions

Application Instructions

Thermoplastic-Epoxy-Resin Crosslinked Systems

Water-Reducible Epoxy Resin Coatings

Water-Reducible Epoxy-Ester Baking Finishes

Manufacturing Instructions

Application Instructions

Water-Reducible Polyamide-Cured Epoxy-Resin Coatings

Manufacturing Instructions

Manufacturing Instructions

Water-Reducible Epoxy-Resin Coatings for Electrodeposition

General Remarks

Maleinization Step After Complete Esterification of the Epoxy Resin with Organic Acids

Cooking Procedure

Application Instructions

8. Epoxy Coating Give into Water

9. Electrical and Electronic Applications :

Sealants and Foams

Electronic and Electrical Applications

Introduction

Casting

Potting

Encapsulation

Coatings

Sealing

Molding

Formulation of the Resin System

Internal Stresses

Rapid Cures

Flexibilizing Epoxy Resins

Fillers

Reactive Diluents

Cycloaliphatic Epoxides

High-Temperature Epoxy-Resin Systems

Flame-Retardant Epoxy Resins

Colorless Epoxy Resins

Epoxy Formulations

Molding

Molding Compounds

Molding Technology

Liquid-Injection Molding

Pellets and Preforms

Epoxy Sealants

Epoxy Foams

Gas-Blown Foams

Syntactic Foams

One-Package Foams

Epoxy-Foam Applications

Epoxy Strippers

Handling of Epoxy Casting Systems

10. Analysis of Epoxides and Epoxy Resins

Uncured Epoxy Resins

Qualitative Tests

Detection of Free Epoxy Groups

Determination of Epoxy Group—Lithium-Chloride Test

Reagents

Procedure

Determination of Epoxy Group—Periodic Acid Test

Reagents

Procedure

Determination of Epoxy Group—Pyrolysis Test

Reagents

Procedure

Determination of Epoxy Group—Lepidine Test

Reagents

Procedure

Detection of the Bisphenol A Skeleton

Determination of Bisphenol A Epoxy Resins—Mercuric Oxide and Nitric Acid Tests

Reagents

Procedure

Determination of Bisphenol A Epoxy Resins in Coatings—Nitric Acid Test

Reagents

Procedure

Determination of Bisphenol A Epoxy Resins—Filter-Paper Test

Reagents

Procedure

Determination of Bisphenol A Epoxy Resin—Formaldehyde Test

Reagents

Procedure

Determination of Bisphenol A Epoxy Resins—Phenylenediamine Test

Reagent

Procedure

Detection of Epoxy Resins Based on 4,4'-Diamino-diphenylmethane

Determination of Epoxy Resins Based on 4,4'-Diaminodiphenylmethane

Reagents

Procedure

Detection of Other Epoxy Resins

Quantitative Tests of the Epoxy Group

Hydrohalogenation Methods

Estimation of Epoxy Group—Hydrochloric Acid in Dioxane, Methyl Ethyl Ketone, or Dimethylformamide

Reagents

Procedure

Calculations

Estimation of the Epoxy Group—Pyridinium Chloride in Pyridine

Reagents

Procedure

Hydrohalogenation by Direct Titration

Estimation of Epoxy Group

Reagents

Procedure

Calculations

Other Chemical Methods

Estimation of Other Functional Groups

Hydroxyl Group

□ -Glycol Group

Estimation of α-Glycol Group

Reagents

Procedure

Calculation
Chlorine
Esterification Equivalent Weight
Estimation of Esterification Equivalent Weight
Reagents
Procedure
Calculation
Infrared Spectroscopy
Technique
Epoxide Absorption Bands
Epoxy Resins
Quantitative Estimation
Following the Degree of Cure
Other Physical Methods
Ultraviolet Spectroscopy
Electron Spin and Nuclear Magnetic Resonance Methods
Gas Chromatography
Paper Chromatography
Thin-Layer and Gel-Permeation Chromatography
Handling Properties
Molecular Weight
Softening Point
Viscosity
Color
Blends and Compounds
Hardeners and Accelerators
Organic Acid Anhydrides
Determination of Acid and Anhydride Content
Reagents
Procedure
Calculations
Amines
Determination of Amine Number
Reagents
Procedure
Calculation
The Curing Process
Curing Characteristics of Epoxy Resin-Hardener Systems
Determining the Degree of Cure
Analysis of Cured Epoxy Resins

11. The Toxicology of Epoxy Resins

Introduction

Experimental Method

Materials

Acute Toxicity

Chronic Toxicity

Irritation

Sensitization

Results

Acute Toxicity

Chronic Toxicity

Irritation

Sensitization

Medical Experience with Epoxy Resins

Comment

12. BIS Specifications

13. International Standards (ISO)

14. Plant Layout and Process Flow Chart & Diagram

15. Photographs of Machinery with Supplier's

Contact Details

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