Disposable Products Manufacturing Handbook

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Disposable Products Manufacturing Handbook (Plastic Cups, Cutlery, Paper Cups, Banana Leaf Plates, Facial Tissues, Wet Wipes, Toilet Paper Roll, Sanitary Napkins, Baby Diapers, Thermocol Products, PET Bottles)

Everyday life products manufacturers worldwide produce a multitude of items that are intended for one use only. A disposable is a product designed for a single use after which it is recycled or is disposed as solid waste. The term often implies cheapness and short-term convenience rather than medium to long-term durability. The term is also sometimes used for products that may last several months distinguish from similar products that last indefinitely.

The fast moving life and modernization simultaneously lead to the necessity of disposables in one's life. One cannot wash utensils all the time, neither can afford to arrange fine and good cutlery of glass or steel in a party for the guest. At such times, people rush for the disposables available in the market with variety of colors and designs.

For a manufacturer, to produce disposables is a good deal keeping in view the present demand and growth in the market. This handbook is a complete well to do package for a layman to understand the basic steps to be followed for setting up a plant for a particular disposable product. The book contains raw material details, product manufacturing process, machinery details, images with raw material and machinery suppliers.

The Disposable Products Manufacturing Handbook is about producing Plastic Cups, Cutlery, Paper Cups, Banana Leaf Plates, Facial tissues, Wet Wipes, Toilet Paper Roll, Sanitary Napkins, Baby Diapers, Thermocol Products, PET Bottles that are used by masses in their day to day life. This well-established text provides a comprehensive coverage of the manufacturing processes adopted to manufacture various disposable products. It gives a holistic view of products produced, which has inputs from diverse fields. The book discusses the importance and objectives of processes and material used for the production of disposable products. Many examples have been provided to illustrate the concepts discussed.

1. INTRODUCTION

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Properties of Polystyrene

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5. Air Cooling Stand: one

6. Trimming Unit: one

7. Haul Off Unit: one

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Properties of Sanitary Napkins

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Non-Woven Fabric

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Hot Melt & Polyextruded Adhesive

Pressure Sensitive Adhesive

Silicone Release Paper

Specifications of the Raw Materials

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Non-Woven Fabric

Silicone Release Paper

Hot Melt

Process of Maufacture of Sanitary Napkins

- (A) Preparation of Cotton Lint Sliver
- (1) Cotton Opening
- (2) Lapping
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- (4) Draw Frame
- (5) Tissue Paper Wrapping
- (B) Manufacture of Sanitary Napkins
- (1) Cone Winding
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Suppliers of Plant and Machinery (For Sanitary Napkins)

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Specification

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Specification

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Features of Creasing & Cutting Machine

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5. Paper Cup Forming Machine

Main Parameters of Paper Cup Forming Machine

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Aesthetics

Strength

Weight

Airtight & Leak Proof

Chemical Resistance

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PET Container Ejector

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Pet Stretch Blow Molding Machine

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Pet Blow Molding Machine

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PET Bottle Making Machine

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Injection Moulding Machine

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Injection Moulding Machine

Injection Moulding Machine

Injection Moulding Machine

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Suppliers of Raw Material

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Applications

Uses & Applications

Food Packaging

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Light Weight

Durability

Moisture Resistance

Thermal Efficiency

Shock Absorption

Versatility

Ease of Use

Environmental Benefits

Manufacturing Process

Basic Raw Material Required

Basic Plant and Machinery Required

For Plates

For EPS Glass & Cups

Method Used

Process

Making Styrene

Making Polystyrene

Preparing the Beads

Making Expanded Polystyrene Foam (EPF)

Molding

Making Extruded, Expanded Polystyrene Foam

Cutting, Bonding and Coating

EPS Products (Plates/Cups/Glasses)

Raw Material & Availability

Moulding

Main Equipment and Technical Parameter

For Plates

1. PS Foam Sheet Extrusion Line

Components

A. Mixer

B. Automatic Feeding System (Automatic Self-control System)

C. 1st Extruder

High pressure Butane Pump

- D. 2nd Extruder
- E. Cooling System
- F. Hauling-off System
- G. Winding Device
- 2. Automatic Vacuum Forming Machine

Components

- 3. Double Worktables Hydraulic Cutting off Machine (PLC controlling)
- 4. Crusher
- 5. Recycling System

For EPS Glass & Cups

A. Material expander: (1 set)

B. Dryer: 1set

C. Crusher: 1set

D. Central System of Sending Material: 1set

E. Foaming Machine: 4 sets

F. Other Assistant Equipments

1. Water Tank (10m3): 2

- 2. Cooling Water Tower
- 3. Centrifuge
- 4. Air Compressor

Manufacturing Process

Basic Raw Material Required

Basic Plant and Machinery Required

For EPS Glass, Cups and Plates

Process Description

Process Flow Diagram

Flow Diagram for EPS (Thermocol) Plates/Cups/Glasses

Raw Material, Product & Machinery Photographs

Fully Automatic Shape Moulding Machine

Features & Technical Specification

Automatic EPS Shape Moulding Machine

Fully Automatic EPS Shape Molding Machine

Automatic Thermocol Packing Machine

EPS Pre-Expander Machine

EPS Preformer

EPS/Thermocol Block/Sheet Cutting Machine

Tech Details

PD Foam Sheet Extrusion Line

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Automatic EPS Foam Cup Molding Machine

EPS Foam Cup Making Machine

Foam Cup Manufacturing Machine

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Importance of Plastic Cutlery

#1 - Cost

#2 - Convenience

Problems

#1 - The Vast Majority of Plastic Cutlery cannot be Recycled

#2 - It creates Waste

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Basic Plant and Machineries Required

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Step 2: Liquification

Step 3: Mould Loading

Step 4: Moulding

Step 5: Packaging

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Injection Moulding Machine

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Manufacturing Factory 2

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II. Application

III. Optional Devic

IV. Specification

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Chemicals

Material

Color and Design

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Manufacturing Process for Toilet Paper Rolls

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Full-automatic High-speed Rewinding and Perforated Toilet Paper Machine

Description of the Equipment

Features Technical Data **Optional Equipment** The Name of Spare Part of the Machine Specification of Raw Paper **Toilet Paper Cutting Machine Functions and Features** Main Technology Parameter Toilet Roll Embossing Machine **Specifications**

Toilet Paper Processing Equipments

- 1. Rewinding Machine
- 2. Toilet Paper Rolls Slitter
- 3. Sealing Machine
- 4. Product

Supplier of Plant and Machinery

Suppliers of Raw Material

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