

Rajoo Engineering Pvt. Ltd.

Rajoo comes with the right blend of experience, expertise and excellence and certainly justifies their mantra "achieving excellence is a compulsion for us". It all began in 1986 and the last 30 years have witnessed the transformation of a modest beginning in a relatively unknown town of Manavadar (Junagadh) in Gujarat to an expansive global footprint with offices in India and overseas with partners world-over. Well-known in global circles as a mature and respected organisation with a zeal for quality, price consciousness and latest in extrusion technology.

With no regional bounds, the company is a market leader in blown film lines, sheet lines and thermoformers in the Indian sub-continent and is in a position of leadership amongst Asian manufacturers of similar equipment. They have become a sought-after name in global markets - exports accounting to over 50% of sales is indicative. While installations are spread across 52 countries, installations in Germany, Spain and U.K. stand out as acceptance by the most stringent and developed markets of the world and with 60% of the business coming from repeat orders, it is a clear indication of the satisfaction levels of existing customers.

A technical collaboration with HOSOKAWA ALPINE of Germany (one of the most reputed companies globally in blown film technology) to produce 'hybrid' solutions with the Alpine technology at the company's manufacturing site at Rajkot benefiting markets in India and Anglophone Africa. Known for bringing world class affordable technology at the door step of the Indian processors, the company entered into a JV (in Rajkot) with Bausano & Figli S.p.a. of Italy, one of the most reputed companies globally in this sector. This has revolutionized pipe manufacturing technology in India.

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Sacmi DECOCAP 360-3D and ULYSSE Win Over A Can-making Multinational

(DoubleShot technology), first with RGB light and then with infrared, thus allowing maximum inspection precision.

Compact and easy to install, this solution can, like the DECOCAP, inspect caps with diameters of up to 110 mm at rates of 1200 pieces per minute. For Sacmi, these two orders underscore the soundness of the CVS 360-3D technology developed by the Group's Automation & Inspection Systems Division: a technology that lies at the core of a wide range of packaging applications that include cap, container, label and preform quality control.

Insights of Rajoo Engineers Ltd.

Our editor in chief Mr. Ginu Joseph had met with the president of Rajoo engineers ltd Mr. Sunil Jain to know about the insights of his company.

"Well, it all started in 1986 when we were a small company and we have come a long since then, we have brought a lot of new technologies in the country and the motto has been to bring affordable world class technology to the Indian industry at affordable prices" these were few kind words expressed by Mr. Jain.

He further spoke about the inclusion of European technologies such as a joint venture with an Italian company 'Bausano' for WBC's, PVC pipes and granulators and also said that they do there due diligence before getting into any exhibition and provide maximum visibility as participants and since the last edition of Plast Asia was quite a success he has ensured the involvement of the association such as PMMI to support it further and has imbibed to make Plast India different.

Range of Products

- Tilting Mould Thermoformer
- Monolayer Blown Film Lines
- Multilayer Blown Film Lines
- 5 Layer Pod
- Downward Extrusion Blown Film Lines
- PS/PE Foam Extrusion Lines
- PS/PP/ABS/PET/EVA Sheet Lines
- Thermoforming & PS Foam Vacuum Forming Machines
- Twin Screw PVC Pipe Plant
- Lab Equipment

Applications

- Flexible Packaging
- Agriculture
- Infrastructure
- Automobiles
- Food & Beverages
- Pharmaceutical
- White Goods
- Stationary & Printing

Types of Plastics Utilized in the Field of Packaging

The three p's namely plastics, printing and packaging are very much similar to the paddles of a ceiling fan as they go hand in hand and are inseparable during certain applications. The pivotal reasons being the extravagant nature of a plastic material which is so apt for printing and packaging applications due to its versatility and moulding ability, light weight, durability, strength, flexibility and so on. Therefore, plastic is often a more efficient material to choose than other alternatives. That's because plastics are incredibly energy efficient to manufacture and because they are lighter than alternative materials. Just two pounds of plastic can deliver 10 gallons—of a beverage. You'd need three pounds of aluminium, eight pounds of steel, or over 40 pounds of glass to bring home the same amount.

Let's have a look on the various types of plastics used for applications regarding packaging on the basis of their vital properties.

1. High Density Polyethylene

HDPE is the most widely used type of plastic. It's used to make many types of bottles and containers. Unpigmented bottles are translucent, have good barrier properties and stiffness, and are well suited to packaging products with a short shelf life such as milk. Because HDPE has good chemical resistance, it is used for packaging many household and industrial chemicals such as detergents and bleach. Pigmented HDPE bottles have better stress crack resistance than unpigmented HDPE.

Properties

- Excellent resistance to most solvents
- Higher tensile strength compared to other forms of polyethylene
- Relatively stiff material with useful temperature capabilities

Common packaging applications

Bottles for milk, water, juice, cosmetics, shampoo, dish and laundry detergents, and household cleaners. Bags for groceries and retail purchases. Cereal boxliners.

2. Low Density Polyethylene

Includes Linear Low Density Polyethylene (LLDPE)

LDPE is used predominately in film applications due to its toughness, flexibility and relative transparency, making it popular for use in applications where heat sealing is necessary. LDPE also is used to manufacture some flexible lids and bottles as well as in wire and cable applications.

Properties

- Excellent resistance to acids, bases

and vegetable oils.

- Toughness, flexibility and relative transparency (good combination of properties for packaging applications requiring heat-sealing).

Common packaging applications

Bags for dry cleaning, newspapers, bread, frozen foods, fresh produce, and household garbage. Shrink wrap and stretch film. Coatings for paper milk cartons and hot and cold beverage cups. Container lids. Squeezable bottles (e.g., honey and mustard).

3. Polyethylene Terephthalate (PET, Pete)

PET is clear, tough, and has good gas and moisture barrier properties. This resin is commonly used in beverage bottles and many injection-moulded consumer product containers. Cleaned, recycled PET flakes and pellets are in great demand for spinning fibre for carpet yarns, producing fibre fill and geotextiles.

Properties

- Clear and optically smooth surfaces for oriented films and bottles
- Excellent barrier to oxygen, water, and carbon dioxide
- High impact capability and shatter resistance
- Excellent resistance to most solvents.

Common packaging applications

Plastic bottles for soft drinks, water, juice, sports drinks, beer, mouthwash, catsup and salad dressing. Food jars for peanut butter, jelly, jam and pickles. Ovenable film and microwavable food trays.

4. Polypropylene (PP)

PP has good chemical resistance, is strong, and has a high melting point making it good for hot-fill liquids. This resin is found in flexible and rigid packaging, fibres, and large moulded parts for automotive and consumer products.

Properties

- Excellent optical clarity in biaxially oriented films and stretch blow moulded containers
- Low moisture vapor transmission
- Inertness toward acids, alkalis and most solvents

Common Packaging applications

Containers for yogurt, margarine, takeout meals, and deli foods. Medicine bottles. Bottle caps and closures. Bottles for catsup and syrup.

5. Polystyrene

PS is a versatile plastic that can be rigid or foamed. General purpose polystyrene is clear, hard and brittle. It has a relatively