

# MANUFACTURER & EXPORTER OF PLASTIC COMPOSITE BOARD PLANT & MACHINERY



Some Products made with **RECYCLONE** using Low Density Plastic Waste

- **ECO Plastic Pallets**
- **ECO Roofing Sheets**
- **ECO Paver Blocks**
- **ECO Furniture**
- **■** Plastic Composite Boards
- **■** Recycled Plastic Homes

## WHAT IS RECYCLONE...??

**RECYCLONE** is a world class end to end plastic waste recycling system integrated with various equipments. It is a turnkey solution to transforms the waste plastic in to the best sustainable utility products. RECYCLONE is a proven technology from India that establishes a complete value chain for the collection and recycling of low-grade plastics.

### **ENVIRONMENTAL IMPACT OF RECYCLONE**

RECYCLONE creates massive environmental impact by processing & transforming 135 Million Kgs of plastic waste from the streets, rivers and municipal waste stream annually. **RECYCLONE** provides world class recycling solution for the types of plastics that are mostly found in the rivers, seas and other water bodies.

## **ABOUT RECYCLONE TECHNOLOGY**

**RECYCLONE** is a world class end to end plastic waste recycling system. It is an integrated turnkey solution which is smartly integrated with various machinery & equipments. It is the most economical solution to transforms the waste plastic in to the best sustainable utility products and widely used in various industry segments.



**RECYCLONE** is a smartly designed and developed by a team of experienced and dedicated technocrats. Our R & D team have done extensive research to develop an end to end recycling solution with a vision to create **Waste to Wealth**.

## **RECYCLONE IN ACTION**

**RECYCLONE** system installed at Nepal that turns 9000 tons of low-grade plastic into a highly valuable composite board. This innovative board can serve as a sustainable alternative to plywood, contributing to both environmental conservation and waste reduction.

This system is recognized, appreciated and funded by **World Bank**, and with implementing support from **UNOPS**. The RIVER+ project in partnership **People in Need Nepal** and **CLEAN UP NEPAL**.





## **RECYCLONE TECHNOLOGY PROCESS & EQUIPMENTS**

**RECYCLONE** is an Indian indigenous integrated technology with multiple equipments and devices. It is an end to end recycling system which transforms the waste to the wealth. It smartly integrated with various equipments to perform the following multiple processes to produce the best quality sustainable utility products from Plastic Waste.

RECYCLONE PROCESS	EQUIPMENTS	
Plastic Waste Sorting	Sorting Line Conveyor with Magnet Device	
Feeding the waste to Grinder	Feeding Line Conveyor	
Washing & Grinding the Waste	Grinder with Inclined Friction Washer	
Drying the Raw Material Particles	Turbo Dryer	
Weighing the Raw Material	Weighing Scale	
Spreading the Material on Mould	Spreading Table	
Feeding the Material For Processing	Automatic Loading & Unloading System	
Hot Pressing to Convert the Particle in to the	Multi Daylight Hydraulic Hot Press 800 Ton	
Board	Thermic Fluid Heater / Boiler	
Unloading from Hot Press	Automatic Loading & Unloading System	
Cold Pressing to strengthen the Composite	Multi Daylight Hydraulic Cold Press	
Board	Cooling Tower	
Cutting the Board in Precise Size & Debarring	Double Dimension Saw	
Area Required for Plant	30,000 Sq Ft Built Up & 10,000 Sq Ft Open	









# HOW RECYCLONE WORKS



Before



Plastic Waste Washing



**Plastic Waste Grinding** 



Spreading On Mold



Loading The Material In System



**Compression With Heating** 



## PLASTIC COMPOSITE BOARD & WPC PANELS MADE BY RECYCLONE



**RECYCLONE** can create the massive environmental impact by converting the low grade plastic waste from the streets, rivers and municipal waste. It creates the plastic waste into a highly valuable **Plastic Composite Boards** and **WPC Panels** with endless application. This innovative board can serve as a sustainable alternative to Plywood, contributing to both environmental conservation of Trees and Forests. These Plastic Composite Boards are also known as PlastPly or Eco Sheets used for verity of following applications.

## **APPLICATION OF PLASTIC COMPOSITE BOARDS & PANELS**

## **Civil Work Applications**



Reusable Shuttring Sheet



Mezzanine Floors



Stair Case



**Border Fencing** 



**Flooring** 



**Low Cost Housing** 

## OTHER INDUSTRY APPLICATIONS OF PLASTIC COMPOSITE BOARDS & PANELS



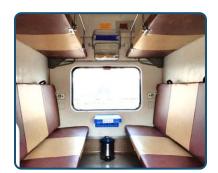
Ship Building



**Industrial Pallets** 



**Furniture** 



Rail & Transport

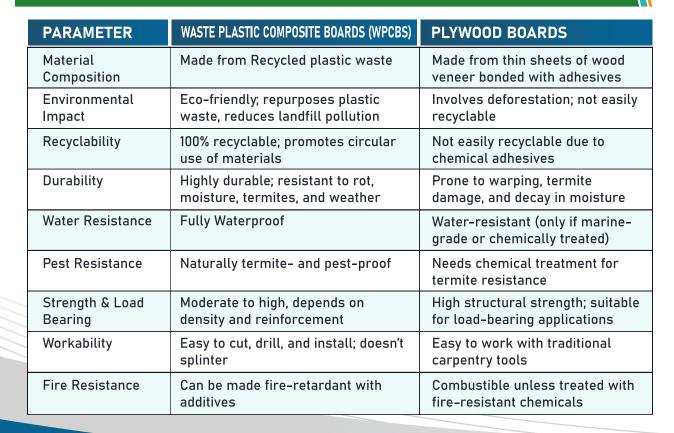


**Plants & Equipments** 



**Temperary Structures** 

## TECHNICAL COMPARISON OF PLASTIC COMPOSITE BOARDS & OTHER MATERIALS



# PLASTIC COMPOSITE ROOFING SHEETS MADE BY RECYCLONE





## **APPLICATION OF PLASTIC COMPOSITE ROOFING SHEETS**

## **Industry Applications**

Plastic Composite Roofing Sheets (ECO Sheets) made with RECYCLONE are widely used in various application like,

- Warehousing
- Cold Storages
- Water Treatment Plants
- Chemical Process Plants
- Textile & Dyeing Factories
- Oil Refining and Petrochemical Plants
- Parking Sheds...etc.





### **Technical Specifications and Features**

Plastic Composite Roofing Sheets (ECO Sheets) made with RECYCLONE are widely used in various application like,

- Zero Corrosion, Zero Maintenance
- Superior Thermal Resistance
- Sound Insulation
- No rusting, no chemical degradation
- Flexural Strength: 60-70 MPA

# PLASTIC COMPOSITE PAVER BLOCKS MADE BY RECYCLONE



# APPLICATION OF PLASTIC COMPOSITE PAVER BLOCKS

## **Other Industry Applications**



Seashore Walkway



**Industrial Parks** 



**Petrol Pumps** 



Railway & Bus Station



**Coloney Compound** 



**Parking Lots** 

# COMPARISON BETWEEN PLAST PAVER BLOCKS AND CEMENT PAVER

CHARACTERISTICS	PLAST PAVER BLOCKS	CEMENT PAVER
Characteristics	Plast Paver Blocks	Cement Paver
Compressive Strength	35 N/mm²	20 N/mm²
Breaking Load	1040 KN	400 KN
Water Absorption	Less than 0.3%	More than 10%
Life Time	30 Years	10 Years
Accuracy	99%	80%
Handling Damage	0% handling damage	1% to 5%
Breaking Method	Machine Cutting Only	Hand break
Weight	2.0 to 2.3 kgs	6 kgs
Price	Economical	Economical

## LOW COST AFFORDABLE HOUSING PREPARED WITH RECYCLONE

## Why Choose Recycled Plastic Homes...

**RECYCLONE** provides turnkey solutions to prepare the recycled Eco friendly plastic homes to best fit your requirements.

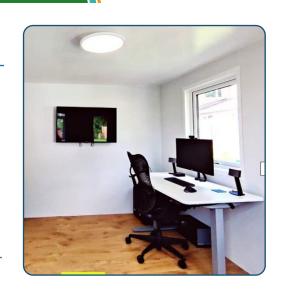
- Cost-effective alternative to traditional materials & methods.
- Quick to build with portable, easy-to-assemble components
- Weather-resistant & highly durable, even in extreme conditions
- Low maintenance no need for plastering, painting, or repairs.
- Fire proof, water proof, heat proof, termite proof homes.



## **CUSTOMIZED SOLUTIONS WITH LIMITLESS POSSIBILITIES**

RECYCLONE can create with limitless possibilities as per your wildest dreams...

- Recycled Plastic Homes for Offices
- Recycled Plastic Homes Gymnasium
- Recycled Plastic Homes for Meditation & Yoga Centre
- Recycled Plastic Homes for urban rooftop or farm Stays
- Large Structures for Hospitals
- Marriage Halls & Resorts
- Schools & Education Centres
- Temporary Structures for Disaster Relief
- Temporary structures for Armed Forces in Border Areas. And Much More



## COST EFFECTIVE AND LOW IMPACT CONSTRUCTIONS WITH LIMITLESS POSSIBILITIES

### Recycled Plastic Home Advantages

Recycled Plastic Homes are prepared at very low cost of 40% compared to traditional concrete structure.

- Lower cost than concrete structure
- Utilize Discarded Plastic Waste
- Fastest Assembly Time
- Movable to another place
- Re usable and Recyclable
- Lowest Maintenance & High Durability
- Zero Rusting & Termite Proof





# **RECYCLONE TURNING WASTE IN TO WONDERS**

## **Furniture & Interior**



**Decorative Sheets** 



Solar Tiles Walkway



Fly Ash Brick Palets



Gazebo



**Public Utilities** 



**Corporate Branding** 



**Interior & Partition** 



**Garden Benches** 



**Outdoor Furniture** 



**Security Guard Shelter** 



**Compound Gates** 



**Garden Planters** 

# ABOUT US

**RECYCLONE** is a world class end to end plastic waste recycling system integrated with various equipments which is design and developed by SHIV INDUSTRIAL SYSTEMS to transforms the waste plastic in to the best sustainable utility products.

RECYCLONE journey started in in 2015 by a team of experienced and dedicated young technocrats with a vision to achieve the goal of zero wastage to create the Green Earth. Our Vision and mission are aligned with **United Nations'** SDGs of creating better human life while protecting the environment. **RECYCLONE** has contributed to **Remove and Recycle 135 Million Kgs of Plastic waste from Rivers and Seas.** 

RECYCLONE is manufactured at our state of the art manufacturing facilities of 17,500 Sq ft backed by the latest manufacturing set up situated at Ahmedabad city of Gujarat State in India.

SOME OF OUR VAULED CLIENTS Who made us stand with the high head in the industry...

Biocomp Nepal Pvt Ltd – Lalitpur – Nepal Appreciated and funded by <b>World Bank, Plastic Free Rivers and Seas for South Asia</b>		
Repono Green Pvt Ltd. – Pune, MS	Wise Wood Ecoplast Pvt Ltd – Nagpur, MS	
Balaji Plastic – Morbi (Gujarat)	Maxo Recycle LLP – Morbi (Gujarat)	
Layoli Recycle Sheet – Morbi (Gujarat)	Elicon Industries - Morbi (Gujarat)	
Pavansut Plast Industries - Morbi (Gujarat)	Supera Plastic Industries - Morbi (Gujarat)	
Silver Recycle Industries – Morbi (Gujarat)	Divine Techno Industries – Morbi (Gujarat)	
Ancora Plasto Industries - Morbi (Gujarat)	Gangavati Techno Industries - Morbi (Gujarat)	
Havish Multi-Tech Industries - Morbi (Gujarat)	Nagnath Techno Industries - Morbi (Gujarat)	

#### **REWARDS & RECOGNITION**



**RECYCLONE** installed at Nepal recognized, appreciated and funded by the **World Bank, Plastic Free Rivers and Seas for South Asia** Project. Its implemented by the **South Asia Co-operative Environment Programme & UNOPS.** 





# **SHIV INDUSTRIAL SYSTEMS**

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