

POLYMER COMPOSITE PRODUCTS MANUFACTURING TECHNOLOGY

DEVELOPED BY



BRANDED BY



SALTECH DESIGN LABS PRIVATE LIMITED

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**TRANSFORMING SINGLE USE PLASTICS,
INDUSTRIAL RESIDUES, CONSTRUCTION &
DEMOLITION WASTE**



**INTO LOW CARBON MATERIALS & GREEN
CONSTRUCTION PRODUCTS**

STARTUP BRIEF

Saltech Design Labs Private Limited was founded with the objective of providing sustainable solutions through innovative design and engineering while utilising cutting-edge technologies. It was established in 2018 as a startup entity is recognised by Startup India (DPIIT) and the Inter-Ministerial Board (IMB) that is creating cutting-edge solutions in the waste to value sector. It creates circularity by deploying a close-loop patented advance recycling technology for transforming waste into polymer composite materials with high-performance at an affordable price

It holds 10+ IP's and 12+ Awards incubated at PDPU Innovation & Incubation Centre and supported from Government of Gujarat & Government of India. The start-up has been conferred National award from Hon. Prime Minister Shri. Narendra Modi for ASHA - India by Ministry of Housing & Urban Affairs (MoHUA), Government of India (2021).

Key Achievements:

- Patents - 4 International (US, CN, JP, AU), 1 PCT & 2 Indian National (Granted)
- Winner - Vibrant Startup & Technology Summit 2018-19 (IC Dept - Govt of Gujarat)
- Winner - Global Housing Technology Challenge 2021 (PMAY - MoHUA Govt of India)
- Winner - Startup Grand Challenge 2022 (SBM Grameen - MJS Govt of India)
- Winner - Swachhata Startup Challenge 2022 (SBM Urban - MoHUA Govt of India)
- Winner - IP Portfolio Startup of the Year 2022 (IP Promotion Outreach Foundation)
- Winner - Global TRANSFORM Plastic Challenge 2023 (FCDO & Unilever - United Kingdom)
- Secured - Green Product Certifications 2024-25 (GreenPro, GRIHA, LCA, EPDs, EOHIA)
- Winner - SAAF Cities Waste Free Communities 2025 (Villgro & HDFC Bank Parivartan)

FOUNDERS ON MISSION



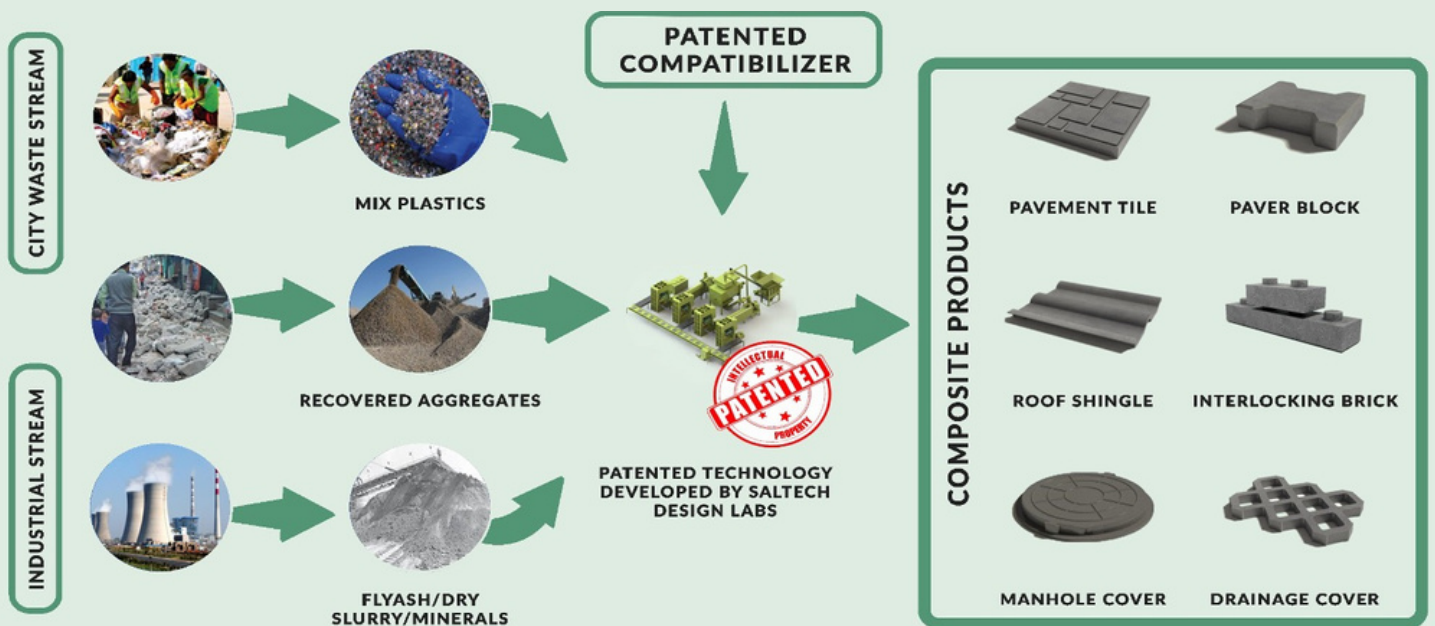
ADITYA SHUKLA
FOUNDER & CEO



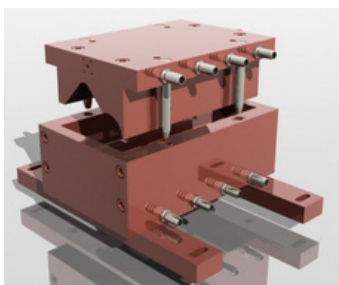
SUDHIR SHUKLA
CO-FOUNDER & CTO

PATENTED TECHNOLOGY

Our patented process transforms Single-Use Plastics, Construction & Demolition Waste, and Industrial Minerals / Aggregate / Fly Ash wastes into high-value alternative composite building materials. It is price competitive with traditional concrete while far better in performance properties and most suitable for precast products application such as paver, brick, block, roof shingle, and tile.

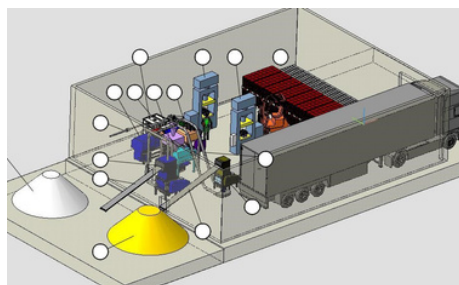


Our sustainable alternate building material is carbon negative than traditional concrete. By turning low-value waste into high-value materials we prevent emissions associated with waste disposal and reduce the depletion of natural resources happening due to the manufacturing of traditional materials such as cement, quarry, timber, clay etc.



Technological design

Develop projects of any complexity, binding to new or existing applications.



Turnkey Construction

Handover complete production line after construction and installation work, start-up, master-mounting.



Project Support

Operational procedure and maintenance from the raw material to finish goods.

POLYMER COMPOSITE MATERIAL

The polymer composite is an artificially created material that is not found in nature and combines qualities uncharacteristic of other materials. The material is produced as a result of uniform mixing of the main components (aggregate and polymer) at the specified temperature regime, resulting in polymer ingestion of each filler particle. In subsequent molding and hardening, the aggregate mass polymer forms a homogeneous monolithic structure with high strength.

INDUSTRIAL WASTE & MINERAL AGGREGATE



Foundry Sand



Fly Ash



Eco-Dolomite



M Sand



C&D Waste



Quartz Sand



River Sand

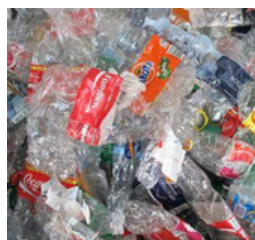


Quarry Dust

MIX PLASTICS



PE, PP, PS



PET, BOPP, PVC



MIX MLP



POLYESTER

COMPATIBLIZER & PIGMENTS



PIGMENTS



RECYCLER COMPATIBILIZER+UV



COPOLYMER

UNIQUE SELLING PROPOSITION



Recycling Technology

- Reduced CO² emissions by 60-80%
- Reduced Water Usage by 90%
- Energy Efficient & Automated Processing
- Plastics & Industrial Waste Co-processing
- Lean Manufacturing for 50+ products



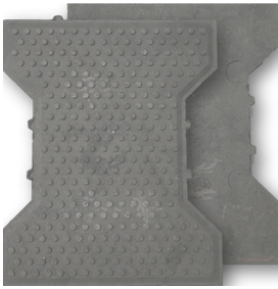
Composite Products

- Excellent Performance Properties
- Economical & Cost Competitive
- Precast with Zero Curing Requirement
- Modular Designs & Rapid Installations
- Scalable for Mass Consumption

CERTIFICATIONS



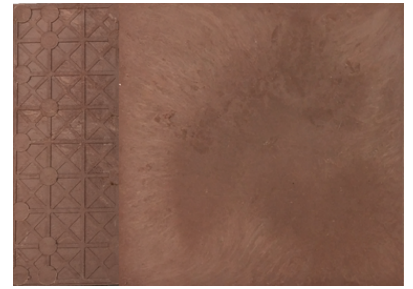
COMPOSITE BUILDING PRODUCTS



Paver Block



Paver Tile



Floor Tile

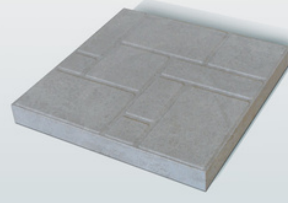
PIPELINE



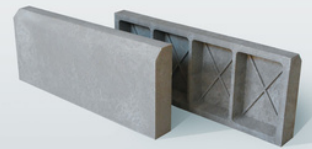
Cobbles



Squares



Tiles



Kerbstone



Road slab



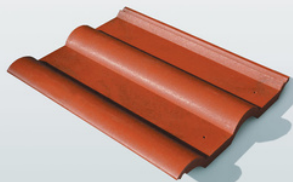
Road bumper



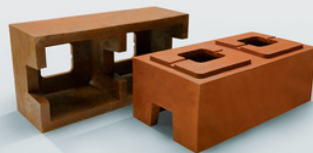
Slabs



Postcover



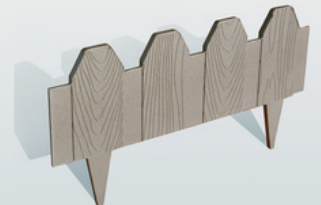
Roof tile



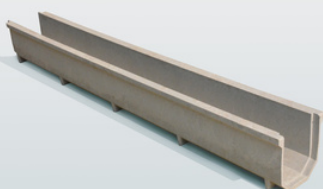
Lego brick



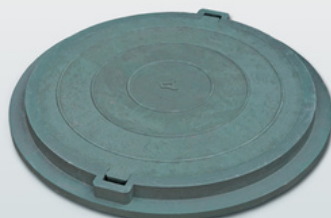
Roof Shingle



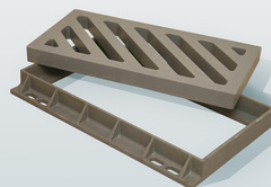
Fencing pole



Drain Channel



Manhole cover



Drainage Grill



Grass Paver

AWARDS & ACHIEVEMENT



Global Housing Technology Challenge 2021
(ASHA Awards – MoHUA, Govt. Of India)



Swachhata Startup Challenge 2022
(SBM - U, MoHUA, Gol & AFD, France)



Startup Grand Challenge 2022
(SBM - G, DDWS, Ministry of Jal Shakti, Gol)



Vibrant Gujarat Startup Summit 2018
(GIDC - IC, Govt. of Gujarat)



UP Plasticathon 2022
(DoEFCC, GoUP & Federal Ministry for the Environment, Germany)



IP Portfolio Startup – IPR League 2022
IPPO - GCCI & CGPDTM, Govt of India

OUR SUPPORTERS



CONVERTING WASTE LIABILITIES TO VALUABLE ASSETS

Our Installation at
PDEU CAMPUS
BASKETBALL COURT HIGHRISE HOSTEL

8 DECENT WORK AND
ECONOMIC GROWTH



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



11 SUSTAINABLE CITIES
AND COMMUNITIES



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



13 CLIMATE
ACTION



14 LIFE
BELOW WATER



15 LIFE
ON LAND

