

Since 2005

IT IS WISE TO MINIMIZE

小智研發

MINIWIZ





1200 New
Materials
Made From Trash / 100%
REACH
0% VOC / 100% Re-recyclable

Q Type a keyword to search

REFINE BY

GENERAL FEATURES

Recycled from

- Short term disposable items
- Durable consumer goods
- Architecture waste
- Textile waste
- Electronic waste
- Agricultural waste

Use for

- Furniture
- Packaging
- Ceiling
- Wall Decoration
- Floor
- Structure
- Building Materials
- Accessories
- Clothes

Eco rank

0 1 2 3 4 5 6 7 8 9 10

Price (US\$)

0 500 100

Potentially for

- Furniture
- Packaging
- Ceiling
- Wall Decoration
- Floor
- Structure
- Building Materials
- Accessories
- Clothes

ARCHITECTURE & DESIGN FEATURES

TEXTILE FEATURES

ENGINEERING FEATURES

MINIWIZ MATERIAL DATABASE

THE RECYCLED MATERIALS DATABASE

LIBRARY

HELP

ABOUT

LOG IN

To enable the circular economy Miniwiz has turned a decade of materials engineering research into open access knowledge. Search the database to discover materials made from trash and their properties.

» access tutorial to learn how to use our search tool



Nike Flyknit Feather

Beijing, Shanghai

Materials Used



PET



Recycled Bottles

Manuf. Technology Used



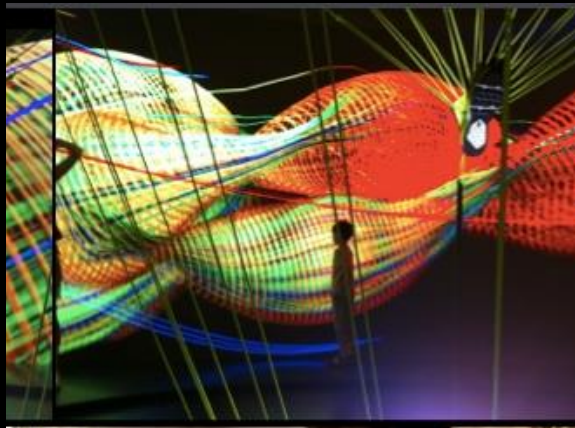
Blow Molding



Injection



Weaving



NIKE X158

Hyper Nature

Shanghai

Materials Used



PET



Drink Bottle



ABS, PC



CDs

Manuf. Technology Used



Board Extrusion



Weaving



NIKE AREA13

Taipei, Shanghai

Materials Used



PET



Recycled Bottles

Manuf. Technology Used



Blow Molding



Injection



Weaving



NIKE AIR pop-ups

Arthur Huang Airmax 1 launch

Taipei + New York City

Materials Used



rPET



rPP



Recycled
Food packaging

Manuf. Technology Used



Weaving



Injection



AEROSTATIC DOME

Milan

Materials Used



PET



Recycled Bottles

Manuf. Technology Used



Weaving



NIKE NYC OFFICE

NEW YORK CITY

Materials Used



rPET



Drink Bottles



Waste Fabric

Manuf. Technology Used



Heat Press Forming



Non woven



NIKE NYC OFFICE

NEW YORK CITY

Materials Used



rPET



Drink Bottles



Waste Fabric

Manuf. Technology Used



Heat Press Forming



Non woven



NIKE TOKYO OFFICE

Tokyo

Materials Used



rPET



Drink Bottles



Waste Fabric

Manuf. Technology Used



Heat Press Forming



Non woven



NIKE LABs

Global Retail

*NYC, London, Paris, Milan,
Tokyo, Hong Kong, Shanghai*

Materials Used



PET



ABS, PC, Rubber



CDs



Shoes



Apparel

Manuf. Technology Used



Board Extrusion



Injection



Weaving



NIKE LABs

Global Retail

NYC, London, Paris, Milan, Tokyo, Hong Kong, Shanghai



NIKE HOUSE OF INNOVATION SHANGHAI



NIKE HOUSE OF INNOVATION SHANGHAI



NIKE KICKS LOUNGE TAIPEI





NIKE KICKS LOUNGE TAIPEI



NIKE AIR LAB POP-UP TAIPEI



NIKE AIR LAB POP-UP TAIPEI



NIKE AIR MAX DAY TAIPEI



EcoARK

Water Conservation Museum

Taipei

Materials Used



rPET



Drink Bottles

Manuf. Technology Used



Blow Molding



Injection



MINIWIZ



NATIONAL
GEOGRAPHIC
CHANNEL



EcoARK

Water Conservation Museum

Taipei

International Building Standard Passed



ASTM E-330/331

Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference



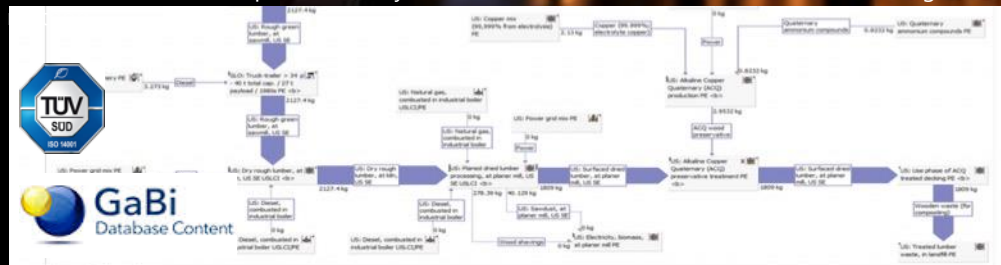
AAMA 501.4

Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference



UL Certification E 98658
Plastics Component

ISO 14001 Carbon Footprint / Toxicity Audited over 95% less than conventional building



LIFE CYCLE ASSESSMENT COMPARISON

BOLLIBRICK SYSTEM

TRADITIONAL BUILDING MATERIAL

- 88%

- 95%

- 91%



CO₂



SO₂



N

IQOS Galleries

*Rome, Milan, Turin, Modena,
Bologna, Catania, Napoli*

Materials Used



PET



PP



Cigarette filter



Drink Bottles

Manuf. Technology Used



Heat Press Forming



Non woven



Anything Butts

Milan

Materials Used



PET



PP



Cigarette filter



Recycled Bottles

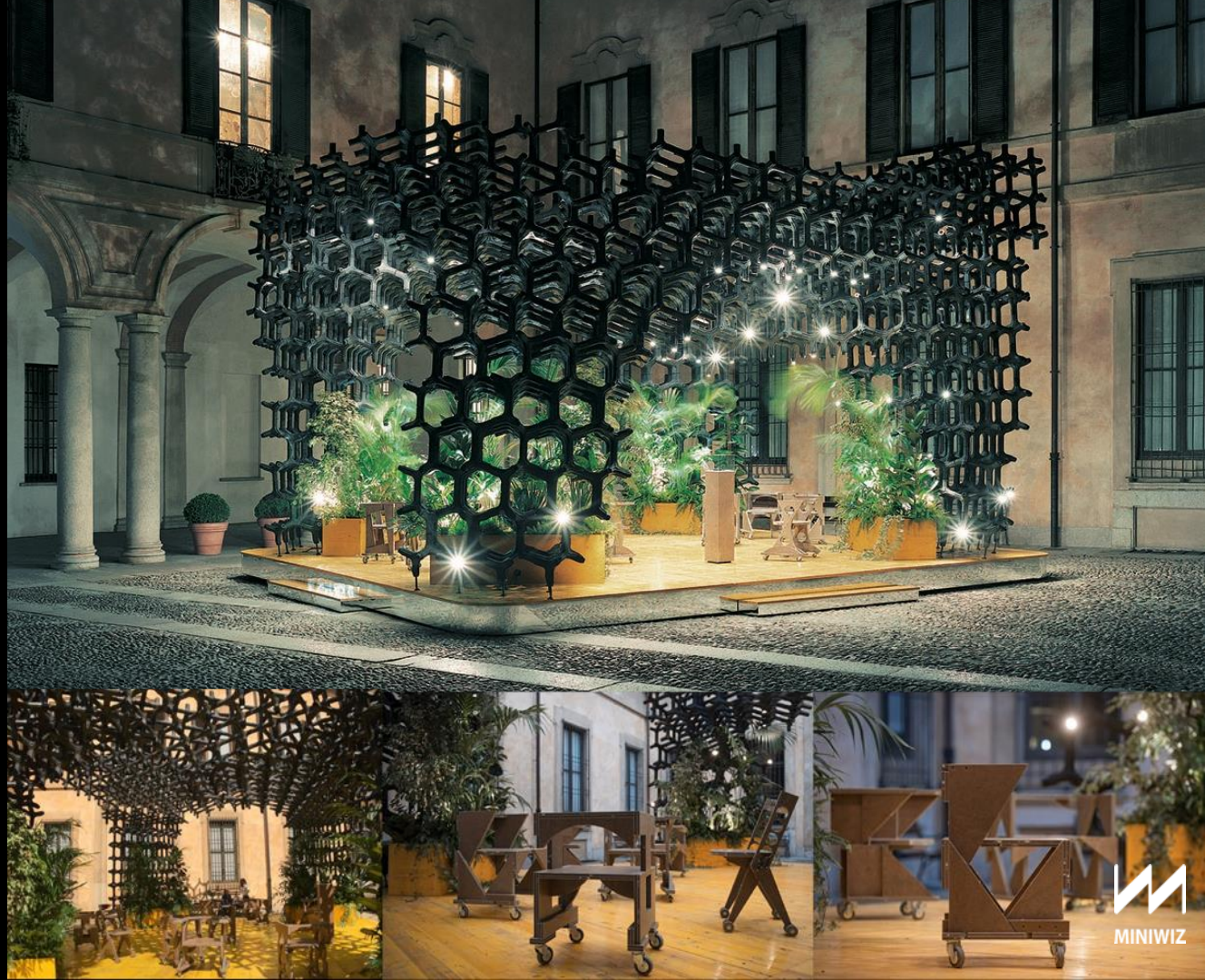
Manuf. Technology Used



Heat Press Forming



Non woven



JC University

JC Stuntman Training

Tianjin, China

Materials Used



rPC

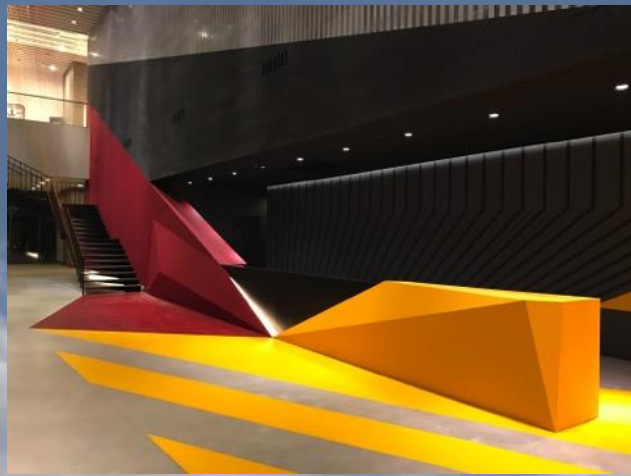


Recycled DVD
E-waste

Manuf. Technology Used



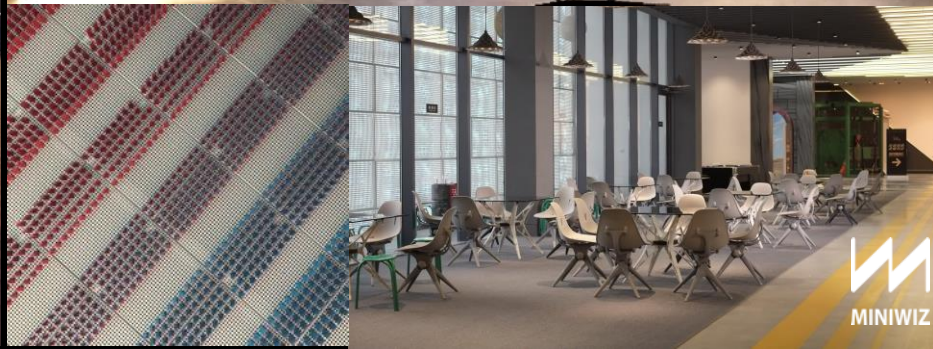
Injection



JC University

JC Stuntman Training

Tianjin, China



JC Hotel

Film Innovation Hub

Beijing, China

Materials Used



rPC



Recycled DVD
E-waste

Manuf. Technology Used



Injection



Board Extrusion

JC Hotel

Beijing innovation lounge

Materials Used



PET



PP



Cigarette filter



Drink Bottles

Manuf. Technology Used



Heat Press Forming



Non woven



JC Hotel

Beijing innovation lounge





SKYLANE

Bangkok

Materials Used



PET



Recycled Bottles

Manuf. Technology Used



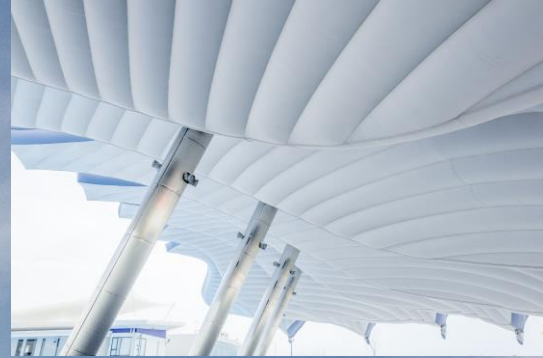
Blow Molding



Injection



Weaving







PENTATONIC®

Photos from Arthur Huang's post




MINIWIZ



100% Circular Furniture building Blocks for all Ages

Trash material locally collected / manufactured, all traceable, digital customization, guaranteed lifetime buy-back, No tool assembly

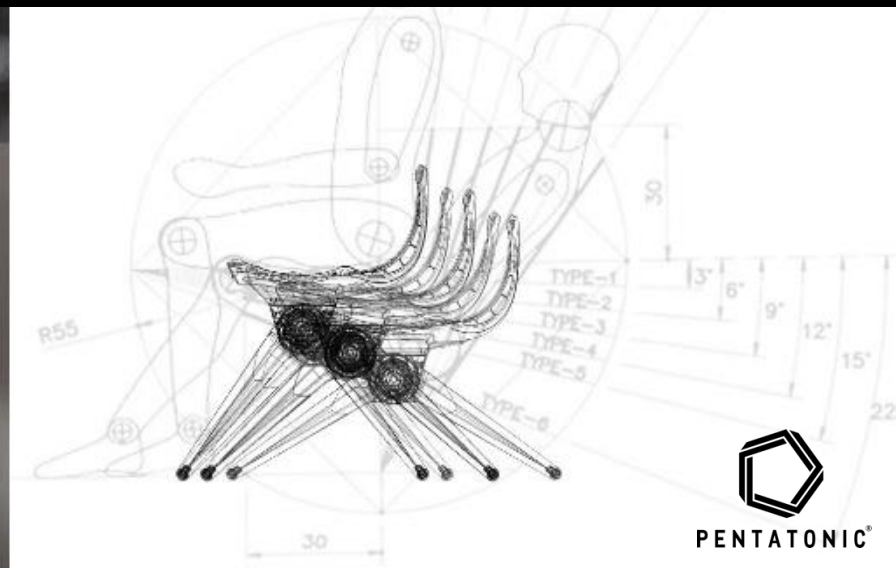


MODULARITY

Gear Mechanism

No-Tool Assembly

Multiple Application



PENTATONIC®



(12) United States Patent
Huang et al.

(10) Patent No.: US 9,949,565 B1
(45) Date of Patent: Apr. 24, 2018

US009949565B1



PENTATONIC®

House of Trash Milan

CUSHIONS
made from recycled plastic bottles

ARMCHAIR (cover)
made from recycled plastic bottles

VASE/GLASS
made from recycled smartphone screens

ARTWORK (base)
made from cardboard boxes

SOFA (cover)
made from recycled plastic bottles

SIDE TABLE
made from recycled Nike shoe soles

BOWL
made from recycled smartphone screens

COFFEE TABLE (top)
made from recycled plastic bottles
and recycled aluminium cans

COFFEE TABLE (top)
made from recycled Starbucks plastic cups

ALL YOU NEED IS YOUR HANDS .

BENCH (seat)
made from recycled plastic bottles

BENCH (feet)
made from recycled food packaging

CARPET
made from recycled Eileen Fisher sweaters

House of Trash

Milan

ALL YOU NEED IS YOUR HANDS .

House of Trash

Milan

UNUSUALITY
THE ONLY QUALITY PRODUCTION MATERIALS DESIGNED FOR REUSE - FROM THE
IT'S ALL NOT THERE, IT'S ALL A CASE IN RECONSTRUCTING SOMETHING FROM SOMETHING IN
REUSE, AND WITH SOME CREATIVITY, EACH MATERIALS CAN BE BETTER THAN
THE LAST ONE YOU WOULD.



House of Trash

Milan



House of Trash

Milan



House of Trash

Milan



WORKING TOGETHER,
WE CAN DESIGN OUR WAY OUT OF DISASTER.



House of Trash

Milan

WE'RE TURNING PROBLEMS INTO OPPORTUNITIES
LANDING INTO LIFESTYLE; TRASH INTO TREASURE.



Smart Circular Textile Innovation: 100% single material over 90% recycled content, Heat Shape formable, Minimized water and chemical usage and 0% micro fiber to achieve premium hand feel



Gardening TRASH

MILAN, ITALY 100% single material

Materials Used



rPET



Drink Bottles



Waste Fabric

Manuf. Technology Used



Heat Press Forming



Non woven



Weaving





TRASHPRESSO

MOBILE TRASH UPCYCLING PLANT US/International invention Patent

20180290340A1



TRASHPRESSO | TIANJING

The revolutionary mobile recycling factory, designed as a dramatic re-interpretation of Miniwiz's groundbreaking upcycling technology, was showcased at the Jackie Chan Training Center to celebrate Jackie Chan Stunt Team 40th Anniversary.



*MOBILE TRASH UPCYCLING PLANT US/International invention Patent
20180290340A1*

TRASHPRESSO | LONDON

A sleek white TRASHPRESSO unit was custom made for the launch of our new furniture brand PENTATONIC. The units were installed at the iconic Somerset House as part of the London Design Festival 2017. Over the course of the week visitors brought plastic waste that was transformed onsite into tiles. The white tiles were placed on black spheres, symbolizing how eco-conscious consumption choices can leave a positive imprint on our planet.



MOBILE TRASH UPCYCLING PLANT US/International Invention Patent

201803021811

TRASHPRESSO | QINGHAI

MOBILE TRASH UPCYCLING PLANT US/International Invention Patent

After 3,000 kilometers long journey, the MINIWIZ Team collaborated with local residents and nomads turn modern trash left by tourist into scalable, market-value building material at the altitude of 4,500 meters in the first county of Lancang River - Zaduo County.



TRASHPRESSO | MILAN

A slick white TRASHPRESSO travelled across the sea from London England to Milan Italy, and participated in the square of Castello Sforzesco for Milan Design week 2018. The MINIWIZ team used coffee cups and cutlery from local plastic waste that was transformed on-site into tiles. Demonstrating our philosophy and teaching visitors the importance of the economic cycle.



TRASHPRESSO

Qinghai, China

Materials Used



PET



PP



PC



Drink Bottles

Manuf. Technology Used



Injection



Non woven

PRODUCT



TrashPresso outputs an unique, marble-like tile which can be used in both interior and exterior wall and floor finishes, targeted \$300-\$400 USD p/m².

The 100% recyclable tile can continue to be remanufactured into a variety of premium products including textiles, packaging, engineering parts, etc.



MOBILE TRASH UPCYCLING PLANT *US/International invention Patent*
20180290340A1





**MOBILE TRASH UPCYCLING
PLANT** US/International invention
Patent 20180290340A1

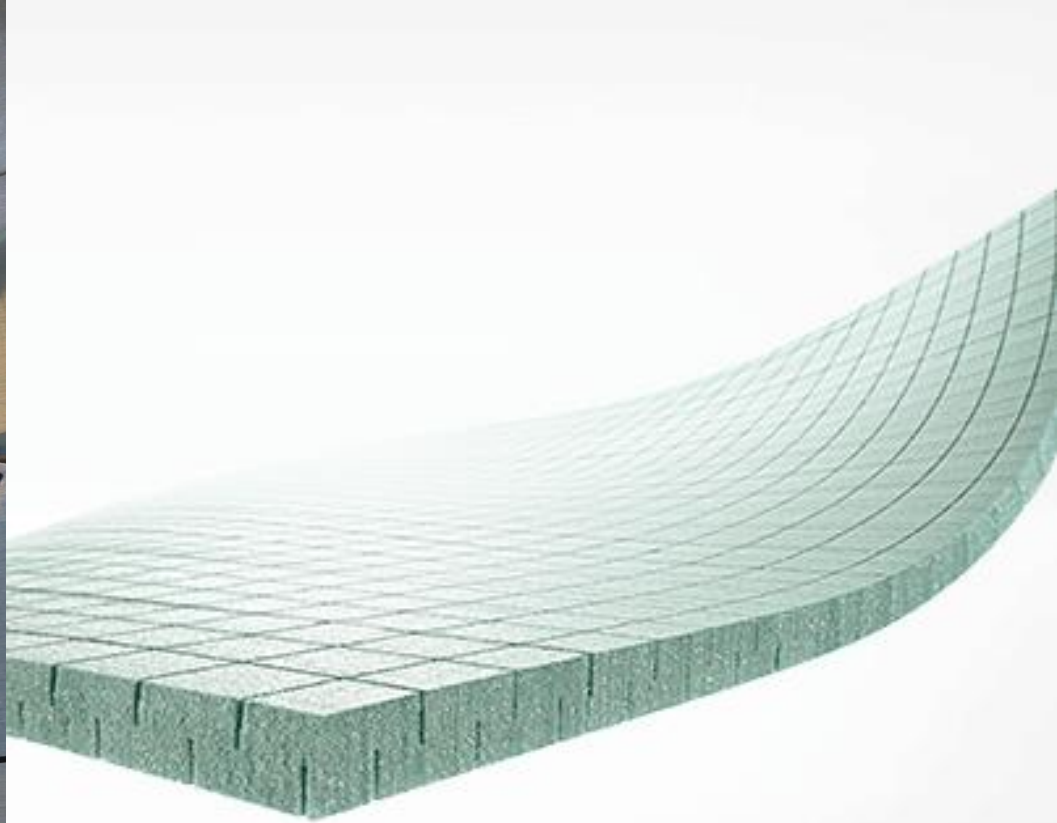


MINIWI



SRPX

*100% single material self-reinforcing
carbon-fiber sheet like material*



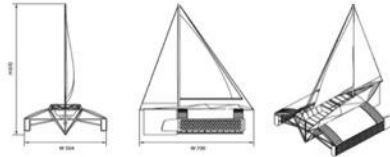
rPET FOAM

Carbon dioxide foaming 100% single material



POLLI-BRICK + POLLI-BER YACHT

The POLLI-BOAT is the worlds FIRST Trimaran inspired by the 3R practices – Recycle, Reduce, and Reuse. Designed and engineered by the global innovator, MINIWIZ Energy Sustainability Development, the FE Forever is made of recycled materials, comprised of the revolutionary POLLI-BRICKS™ (recycled plastic bottles) and POLLI-BER. The waste canvas in its original form is being reused as part of the decking. Its renewable energy systems, powered by both solar and wind can be interchangeable depending on weather conditions.



Eco-Fighter

Taipei, Berlin

2018

Materials Used



PET



Recycled Bottles

Manuf. Technology Used



Blow Molding



Injection



Weaving



Eco-Fighter

Taipei, Berlin

2018

Materials Used



PET



Recycled Bottles

Manuf. Technology Used



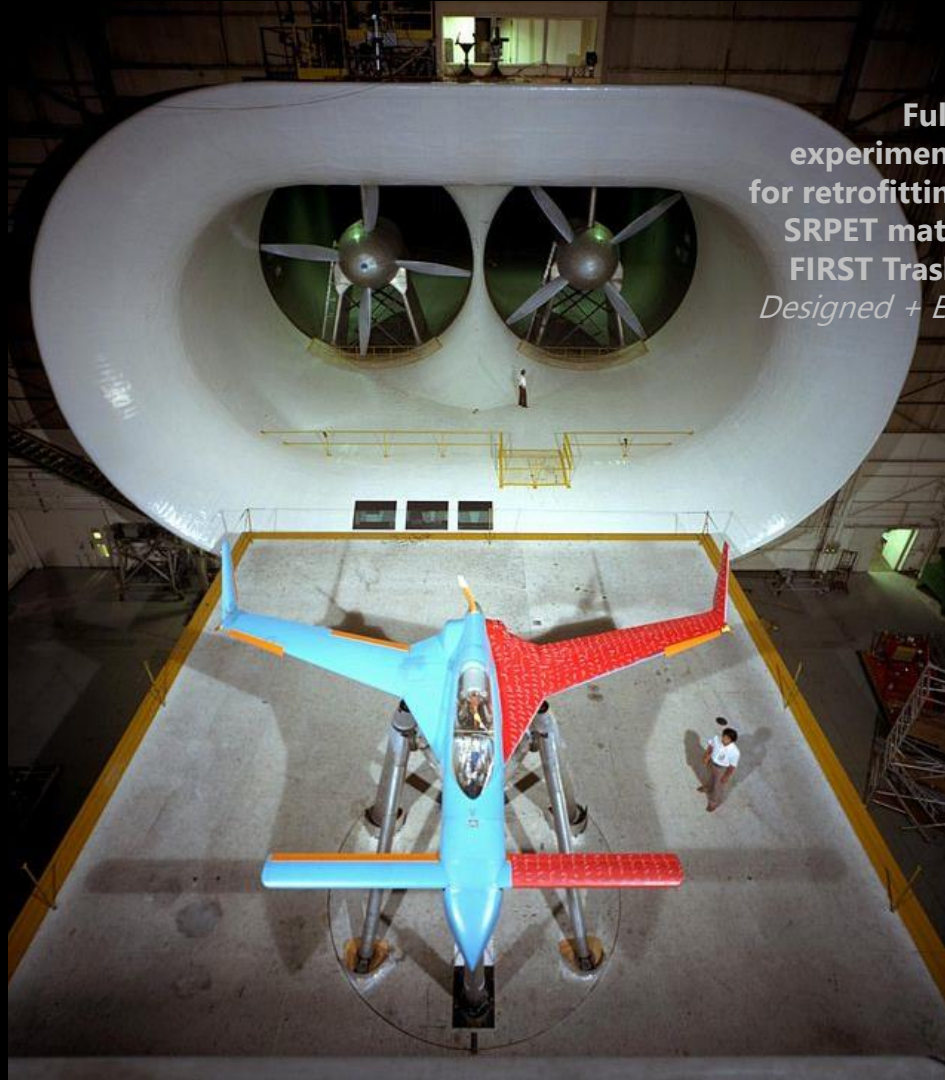
Blow Molding



Injection



Weaving



ECO-FIGHTER

Fully certified US EU registered experimental aircraft moving to Taipei for retrofitting its wings using MINIWIZ's SRPET material going to be the world's **FIRST** Trash made flying transport. ----


Designed + Engineered + Built by MINIWIZ for MINIWIZ March, 2016


MWCC Impact Equivalent

$$\begin{array}{ccccc} 216,271 & \text{sqm} & \times & 80 & \text{kg/sqm} & = & 17,301,680 & \text{kg} & \text{CO}_2 \\ \text{Total Area} & & & \text{CO}_2 \text{ reduced per sqm} & & & \text{CO}_2 \text{ reduced total} & & \end{array}$$


$$\begin{array}{ccccc} 17,301,680 & \text{kg} & \div & 10.95 & \text{kg/tree/year} & = & 1,580,062 & \text{Tree/year} & = & 79\% & \text{in Singapore} \\ \text{CO}_2 \text{ reduced total} & & & \text{CO}_2 \text{ Captured} & & & & & & & \end{array}$$

per tree in a year



$$\begin{array}{ccccc} 216,271 & \text{sqm} & \times & 7.8 & \text{kg/sqm} & = & 1,686,914 & \text{kg} & \text{SO}_2 \\ \text{Total Area} & & & \text{SO}_2 \text{ reduced per sqm} & & & \text{SO}_2 \text{ reduced total} & & \end{array}$$


= 49 days
Taichung Fire
Power Station



$$\begin{array}{ccccc} 216,271 & \text{sqm} & \times & 2.2 & \text{kg/sqm} & = & 432,542 & \text{kg} & \text{N} & = & 1x & \text{N} \\ \text{Total Area} & & & \text{N reduced per sqm} & & & \text{N reduced total} & & \end{array}$$
