OUR MISSION and call to arms

To create appreciating value from the world’s plastic waste

And by doing so... generate environmental, economic and social value so that everyone can prosper
THE PROBLEM IS CLEAR

- Only **9.5%** of plastic waste is being recycled
- The remaining **90.5%** is incinerated or ends up in landfills or the ocean
- More than **150 million tons** of CO$_2$e of greenhouse gases emitted per year are due to plastic incineration
WE UNLOCK ENVIRONMENTAL, ECONOMIC AND SOCIETAL VALUE FROM THE WORLD’S PLASTIC WASTE THROUGH OUR REAP MODEL

Our unique and patented process converts all types of plastic (resins 1-7) into a range of concrete Eco-Additives marketed under the name RESIN8.

We work with construction industry partners to improve the value and performance of structural and non-structural concrete applications.

We focus on delivering better economic, environmental, and societal outcomes for all – including building affordable climate-resilient housing solutions with partners like Habitat for Humanity.

We work to recover unwanted plastic in a variety of ways, including our own ‘Bag that Builds’ plastic collection program with partners like UNDP.
RESIN8™ is a breakthrough Eco-Aggregate / Eco-Additive made from mixed plastic waste

CONVERTS
To a high-value Eco-Aggregate called RESIN8, that improves concrete performance

ACCEPTS
All types of mixed or dirty plastic waste (Resins 1-7)

IMPROVES
The structural, thermal and environmental properties of concrete products
1) Our innovative process is **water-less**. We pre-condition the mixed plastics with **Calcium Hydroxide** and **Ash (pozzolans)**. Kills pathogens and odors.

2) The mixture is run through an **extruder** with a small amount of moisture which produces a **hybrid mineral-polymer** with an open cell structure.

3) The bulk **RESIN8 is then granulated** into the size, shape, and gradation required by standard concrete mix designs.
Concrete applications using RESIN8 meet and exceed ASTM standards as the international benchmark for material performance.

Concrete blocks & pavers

Pre-cast concrete

Poured in place concrete

Structural applications utilize between 2%-10% RESIN8 replacement of aggregate. Non-structural applications utilize up to 50% RESIN8 replacement of aggregate.
RESIN8™: EXTENSIVELY TESTED
ACCEPTED BY THE CONSTRUCTION INDUSTRY

Developed by and for the construction industry.

RESIN8 is the only material from plastic waste to improve the performance of structural concrete products.

The rough and open-cell structure of RESIN8, combined with exposed Calcium Hydroxide and pozzolan ash particles, enhances both the mechanical and chemical adhesion with the cement paste.

- Maintains Appearance
- Maintains Strength\(^1\)
- Maintains Fire Resistance\(^2\)
- Reduces Weight
- Lowers Water Absorption
- Improves Insulation

1. Based on ASTM International standards testing.
2. Based on ASTM E119 Testing on concrete blocks containing 5% RESIN8™.
RESIN8™ HAS EXCEPTIONAL ENVIRONMENTAL CREDENTIALS

- Accepts any plastic and diverts from landfill or incineration
- Extends the productive use of plastic
- No leaching, abrasion or micro-plastic release
- Supports climate-resiliency and Net Zero goals
- Contributes to the reduction of building energy use
- Fully circular at the end of its concrete life
RESIN8™ CONTRIBUTES TO GREEN BUILDING DESIGN
Examples based on two rating systems

LEED BD+C: NEW CONSTRUCTION & V4.1:
- Minimum Energy Performance
- Optimize Energy Performance
- Storage and Collection of Recyclables
- Building Product Disclosure and Optimization - Environment Product Declarations
- Construction and Demolition Waste Management
- Innovation

LEED BD+C: MULTIFAMILY HIGHRISE V4:
- Minimum Energy Performance
- Annual Energy Use
- Environmentally Preferable Products
- Construction Waste Management
- Innovation

The use of RESIN8 in concrete building material can assist in earning points to achieve certification through USGBC’s LEED program. The credits outlined below may be eligible to earn points within the LEED BD+C: New Construction v4 and v4.1 and LEED BD+C: Multifamily Midrise v4 rating systems. Note, the use of RESIN8 alone will not guarantee the compliance of with credit requirements / eligibility to earn points. Specific requirements and additional measures may vary depending on the project and building details.
NEW PRODUCTS IN THE PIPELINE
RESIN8 C (Carbon Capture)

🔥 Coated RESIN8 reacts with flue gas from cement kiln or industrial smelter or vehicle emissions.
🔥 Calcium Carbonate shell around RESIN8 with nylon fiber reinforcement.
🔥 Absorbs CO$_2$ up to 10% of the weight of the RESIN8 particles.
  • Perfect for inclusion in ready-mix concrete.
  • Accelerates curing of ready-mix concrete
  • Adds air entrainment to help with freeze/thaw
  • Increases strength due to controlled carbonation
  • Can decrease the amount of cement used in a mix
  • Sequesters CO$_2$ forever
NEW PRODUCTS IN THE PIPELINE:
RESIN8™ expansion into the asphalt industry

Development and testing partners

Texas A&M Transportation Institute
National Center for Asphalt Technology (NCAT) at Auburn University
GLOBALVIA®

Test being performed with RESIN8 in Asphalt at the University of Costa Rica's Material Science Lab
Plants can scale from 250kg/hr to 72 tonnes per day.

IDEAL AS AN ISLAND BASED SOLUTION WHERE ALL THE MATERIAL CAN BE COLLECTED, PROCESSED, AND USED ON THE ISLAND.

Our integrated solution from collection through to construction.
Thank you