



# RESIN8

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**THE CONCRETE  
SOLUTION  
TO PLASTIC WASTE**

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GLOBAL

# STRATEGIC VISION



TO MAKE A SIGNIFICANT GLOBAL IMPACT ON THE PLASTIC CHALLENGE BY RECOVERING AND CREATING VALUE FROM **ALL** PLASTIC WASTE.

## BEYOND PLASTIC:

RESIN8 not only ends plastic waste in the environment, it **reduces CO<sub>2</sub>** emissions and **stimulates community renewal** through social and commercial construction projects.



# 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<sub>2</sub>e of greenhouse gases emitted per year are due to plastic incineration



# THE SCALABLE SOLUTION IS HERE



RESIN8™ IS A BREAKTHROUGH CONCRETE MODIFIER MADE FROM MIXED PLASTIC WASTE



## ACCEPTS

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

## CONVERTS

To a high-value aggregate  
that **perfectly simulates**  
construction sand

## IMPROVES

The structural, thermal and  
environmental properties of  
concrete products

# PRODUCT APPLICATIONS



ALL STRUCTURAL AND NON-STRUCTURAL CONCRETE PRODUCTS  
(Typically between 3%-25% aggregate replacement)<sup>1</sup>

Concrete  
blocks &  
pavers



Pre-cast  
concrete



Poured  
in place  
concrete



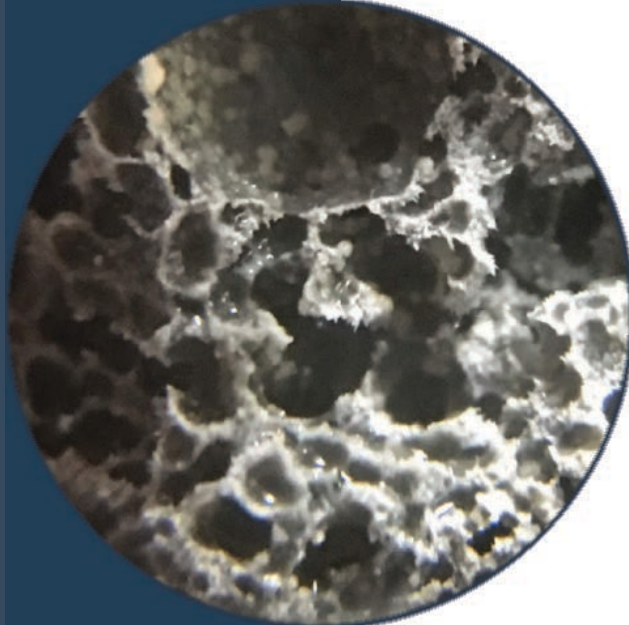
1. Structural applications utilize between 3%-10% RESIN8 replacement of aggregate. Non-structural applications utilize up to 50% RESIN8 replacement of aggregate.

# COMPETITIVE ADVANTAGES



RESIN8™ IS THE ONLY MATERIAL FROM PLASTIC WASTE TO MEET AND EXCEED THE NEEDS OF THE CONSTRUCTION INDUSTRY

Porous composition and gradation of RESIN8™ improves both the mechanical and chemical bond to cement



MAINTAINS STRENGTH<sup>1</sup>

MAINTAINS FIRE RESISTANCE<sup>2</sup>

MAINTAINS APPEARANCE

REDUCES WEIGHT

IMPROVES INSULATION

REDUCES CARBON EMISSIONS<sup>3</sup>



1. Based on ASTM International standards testing.

2. Based on ASTM E119 Testing on concrete blocks containing 5% RESIN8™

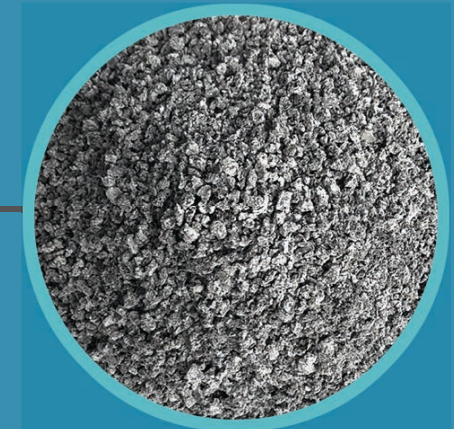
3. As a global average, 1 ton of plastic waste diverted from landfill & incineration is equivalent to 460kg CO<sub>2</sub>e removed from the environment. LCA for RESIN8™ in progress.

## PLASTIC WASTE IS PRE-CONDITIONED AND HYBRIDIZED

- 1 A primary shredding and dry cleansing process sanitizes waste plastic without water, killing any microbial pathogens

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- 2 A secondary heat extrusion process creates an environmentally benign hybrid mineral-polymer that bonds chemically to cement



# PATENT-PENDING PROCESS



1  
Waste plastic  
is shredded

2  
Ca(OH)<sub>2</sub>  
& ash added

3  
Mix is fed  
through  
extruder

4  
Extruded  
material  
granulated

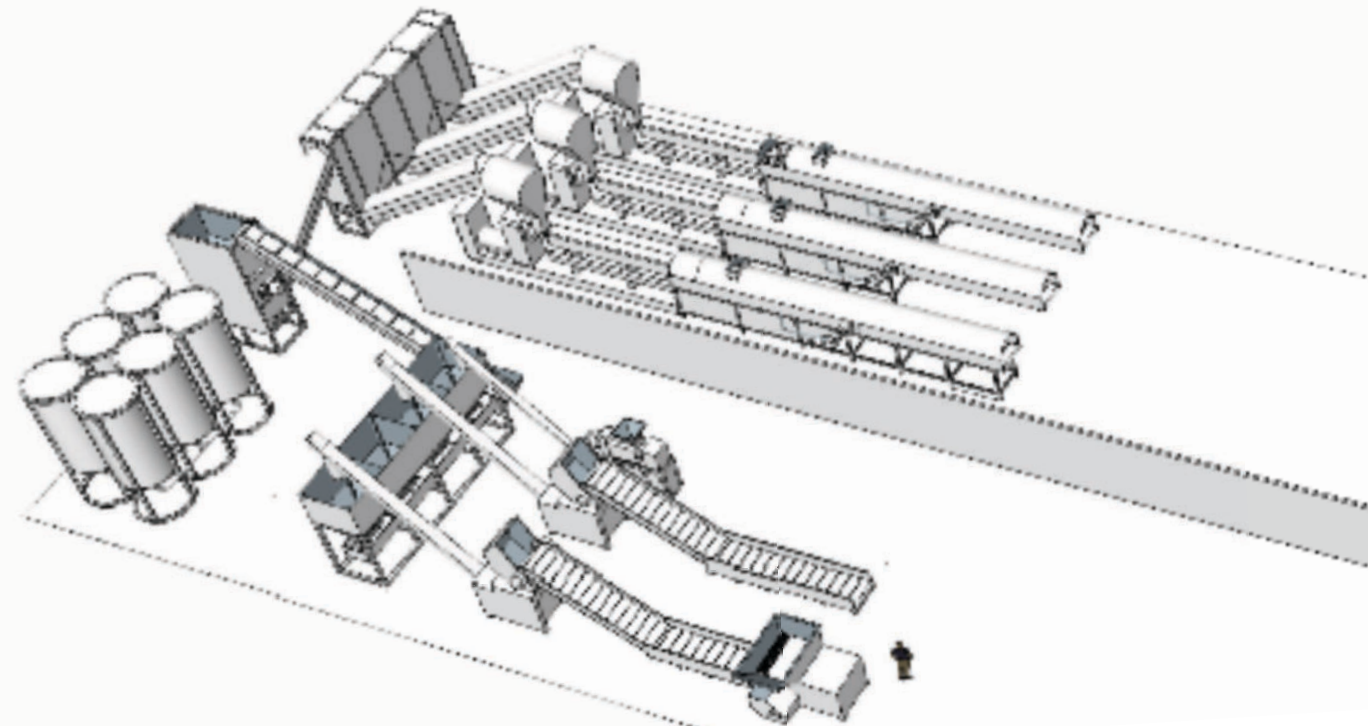
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OFF-THE-SHELF  
EQUIPMENT

LOW CAPEX

GLOBALLY  
SCALABLE





WE ARE GUIDED BY OUR GLOBALLY RECOGNIZED BUSINESS PROTOCOL

## RECOVER. ENRICH. APPRECIATE. PROSPER.

Inspired by bio mimicry, REAP looks to create collaborative relationships between diverse industries, where the waste stream of one becomes the value stream for the next; where the yield of the output is greater than the sum of all the inputs; and finally, where consumption becomes regenerative.



A People's Choice Finalist  
"Best-in-Class Example"  
of the Circular Economy



RESIN8 & CRDC: 2020 Winner  
of the DOW Impact Award

### Recover

Waste Remediation

### Enrich

Durable Products

### Appreciate

Quality Assets

### Prosper

Increased Yields



# BUILDING NEW STRATEGIC PARTNERSHIPS WORLDWIDE



## Waste Management



## Concrete & Construction



## Plastic & Packaging



## NGOs & Foundations



# PLASTIC RECOVERY - EMISSIONS REDUCTION - SOCIAL DEVELOPMENT



Image: housing built in Costa Rica using RESIN8™. In collaboration with Pedregal, Habitat for Humanity and Dow.