



COMPANY PROFILE

Founded in Costa Rica in 2018, we are an innovative building material company whose mission is to 'create appreciating value from the world's plastic waste'.

REAP

Recover · Enrich · Appreciate · Prosper

OUR MODEL

We unlock value from the world's plastic waste through our REAP model.



RECOVER

We work to recover unwanted plastic in a variety of ways, including our own 'Bag that Builds' plastic collection program with a variety of NGO, government, multilateral, and private sector partners.



ENRICH

Our unique and patented process converts all types of plastic (resins 1-7) into a range of concrete additives.



APPRECIATE

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



PROSPER

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

OUR PRODUCT

RESIN8™ is a low-carbon hybrid mineral-polymer, boasting an impressive 90% composition of recycled and reused materials. Its lightweight and versatile nature makes it an ideal high performing aggregate or additive, for use in structural and non-structural concrete applications, as well as asphalt. It also has a net zero carbon footprint based on our recent LCA in Costa Rica.

Superior performance:

RESIN8 has been extensively tested by a wide range of industry and regulatory authorities in multiple countries and under different environmental conditions. The results consistently demonstrate that adding RESIN8 to concrete products has a positive impact on their performance. Concrete applications using RESIN8 meet and exceed ASTM standards as the international benchmark for compression strength and fire resistance and RESIN8 has been demonstrated improve thermal properties and weight.

Planet net positive:

The unique thermal properties of RESIN8 make it an effective building insulation product, contributing to the reduction of building energy use, improving climate resiliency, supporting Net Zero goals over time through accumulated energy savings and keeping plastic out of landfill, incineration and the environment. There is no leaching, abrasion, or micro-plastic release after utilization in concrete and as a recycled product, RESIN8 is fully circular at the end of its concrete life. It can be crushed and reused and has a low embodied energy production footprint.

Full Circular Opportunity Available

Our partners are increasingly taking the opportunity to close their plastic waste loop, and are transforming their plastic waste used into RESIN8, which is then used in their current or future construction projects. By doing so, they close their circular loop and ensure their used plastic serves a valuable role beyond its initial life.

> Contact us at shane@crdc.global to join the circular solution economy today!



● Commercial scale plant

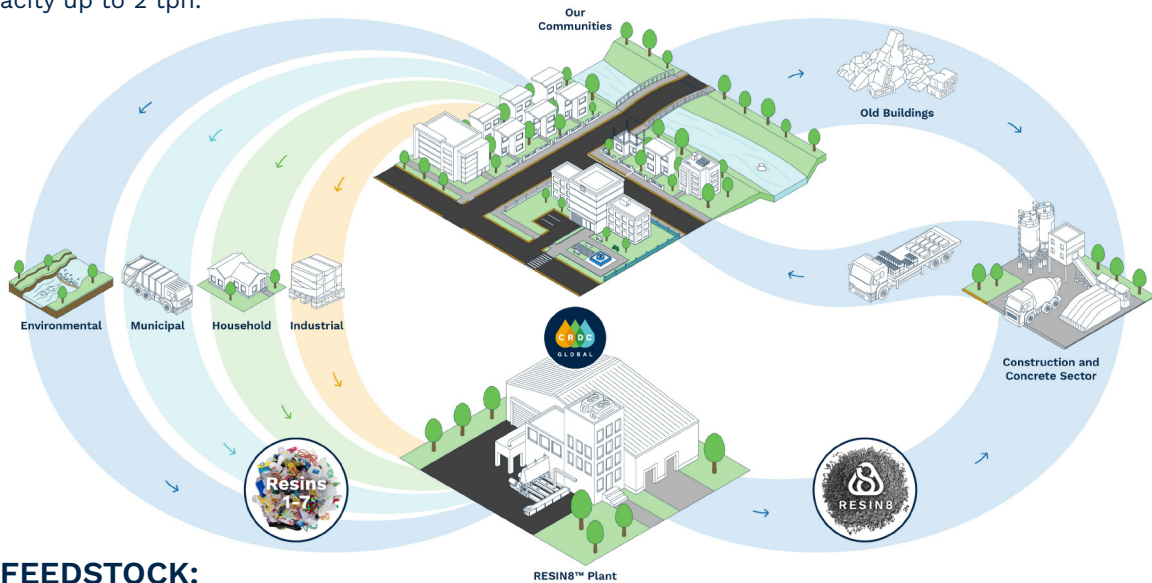
● Small / R&D scale plant



CRDC Victoria is a joint venture between CRDC Circular Solutions (Australia) and the Australia and New Zealand Recycling Platform. CRDC Circular Solutions (Australia), a subsidiary of CRDC Global, owns the rights for the delivery of the RESIN8 aggregate manufacturing process. CRDC Victoria has developed Australia's first RESIN8 plant in Tottenham, Victoria.

CRDC Victoria AU1 Tottenham RESIN8 factory:

Australia's first RESIN8 factory (AU1) is located in the industrial suburb of Tottenham, 9km west of the Melbourne CBD. The factory was officially opened on the 29th of April 2024 by Victorian Minister for the Environment, Steve Dimopoulos. The factory has a floor area of 3150m² which accommodates feedstock supply, manufacturing and storage of finished product. The current capacity with a single extruder is 1 tph, with a second extruder already delivered to be installed, bringing capacity up to 2 tph.



PLASTIC FEEDSTOCK:

The RESIN8 process can process large quantities of plastic that would otherwise be disposed of in landfill. RESIN8 is a versatile and lightweight building material that can be utilised in a variety of structural and non-structural concrete applications, as well as asphalt. As such, the end-market is sufficiently sizable to absorb a significant portion of the plastic waste currently generated.

The facility processes a wide range of plastics, including those that are difficult to recycle due to polymer or composite type. Hard plastics are currently sourced from e-waste recycling and other pre- and post-consumer sources. Soft plastic, flexibles and films are being sourced from the RedCycle stockpile and new trial collections via the Soft Plastics Taskforce, councils, and other pre- and post-industrial sources. A gate fee is charged for receiving this plastic, usually lower than the cost of landfill disposal, providing a viable recycling opportunity.

Feedstock Suppliers:

CRDC Victoria is currently working with a number of feedstock suppliers for both hard and soft plastic. Before accepting ongoing supply, all material undergoes sample testing to ensure suitability for RESIN8 production. Contaminants that affect the product characteristics and those that can damage the shredding/extrusion equipment are the primary factors affecting suitability.

> For enquiries regarding feedstock supply contact Paul duPlessis at paul.du.plessis@crdc.global





RESIN8:

RESIN8 is a high performing and versatile mineral polymer that can be used in a variety of concrete and asphalt applications.

Common product applications for RESIN8 include use in:

- pavers
- pre-cast concrete products
- additive to ready-mix concrete
- concrete bricks and blocks
- asphalt road construction.



Applications and Testing:

Two of Australia's leading **brick and block** manufacturers have successfully produced masonry products including bricks, blocks, pavers using RESIN8 with aggregate replacements of up to 15%. These products have met or exceeded all performance tests and will soon be available for sale.

The first test of a **high-strength precast structural panel** has been completed with good results. This panel, used as a highway barrier, is currently undergoing comprehensive testing.

Three **non-structural concrete pads** have been successfully poured by a National Construction Group in partnership with a National Concrete supplier and have met the requirements to be specified in government civil engineering projects.

An asphalt road project using RESIN8 as an aggregate replacement is being delivered in partnership with RMIT, Austroads and the Victorian Department of Transport and Planning with the objective to increase the use of recycled plastics in road construction.

RESIN8 Purchase:

RESIN8 is available for purchase from the factory in ~500kg bulka bags. Guidance can be provided regarding mix designs and a technical specification sheet is available.

> For enquiries regarding RESIN8 sales contact Shane Ramsey at shane.ramsey@crdc.global

