



CHANGE THE SAND.
CHANGE THE WORLD



SCG SAND: The Future of Sustainable Construction

Stronger. Cleaner. Smarter.

SCG SAND is a high-performance, recycled alternative to traditional quarry sand — produced from waste glass using our world first, patented Technology. Engineered for use in **structural concrete**, this breakthrough product is already setting a new benchmark on some of Australia's biggest infrastructure projects.

Proven on Projects That Matter

SCG SAND has been successfully used in the **Melbourne Metro Tunnel** project, in partnership with:

- **Holcim Australia**
- **Cement Australia**
- **University of Melbourne**
- **RMIT**
- **Cross Yarra Partnership**
- **John Holland Group**

In these real-world trials, SCG SAND replaced up to **80% of natural sand** in structural concrete mixes — delivering **stronger, more durable results** with no compromise to workability or performance.

Why Projects Are Switching to SCG SAND

- ✓ Meets or Exceeds Industry Standards
- ✓ Proven in Structural Concrete Applications
- ✓ Reduces Embodied Carbon & Landfill Waste
- ✓ Compatible with VicRoads Section 610 Specs
- ✓ Smooth Finish for Architectural & Commercial Use
- ✓ No Special Chemicals or Additives Needed

Product Range

Product Type	Size Range	Use Cases
Fine Sand	<300 micron	Renders, paints, decorative finishes
Concrete Sand	300–800 micron	Structural concrete, premix bags, shotcrete
Coarse Sand	1000–1500 micron	Screeds, paving, drainage
Custom Blends	Tailored to project	We'll match any spec you require

Circular Innovation, Delivered

- Replaces up to 80% of unsustainable natural sand
- Diverts glass fines from landfill (much of which has been previously unrecyclable)
- Lowers environmental impact across sourcing, freight, and emissions
- Unlocks cost efficiencies in logistics and finishing

Join the Movement

SCG SAND isn't just recycled — it's **refined, resilient, and ready**. If you're looking for performance without compromise and sustainability without sacrifice, let's talk.

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RETHINKING CONCRETE FOR A **GREENER** TOMORROW

The Science Behind SCG SAND

At the core of SCG SAND is a breakthrough in materials science and process engineering — turning **waste glass** into a high-performance sand replacement through **patented technology**.

What Makes SCG SAND Different?

Unlike conventional crushed glass, which often has inconsistent sizing and poor performance in concrete, **SCG SAND is engineered for structural-grade use**. Here's how:

Precision Particle Engineering

Using Vortex oscillation and air separation, we create sand with:

- **Controlled particle size distribution** (from 40 μ to 1500 μ)
- **Consistently angular, high-surface-area particles**
- **Virtually zero organic impurities**, which can otherwise disrupt concrete curing

These characteristics allow SCG SAND to **bond more effectively** with cement paste than natural sand, enhancing strength and durability.

Microscopic Surface Advantage

Under SEM imaging, SCG SAND particles show a **highly etched surface** texture — unlike smooth, rounded river sand.

This roughness improves:

- **Adhesion** between particles and cement
- **Water retention** within the mix (reducing shrinkage)
- **Overall matrix density**, leading to lower permeability

The result? Concrete that performs better in both fresh and hardened states.

Chemically Compatible & Low Reactivity

Standard crushed glass is often avoided in structural applications due to **alkali-silica reaction (ASR)** risk. But SCG SAND is different:

- It is **processed to minimise ASR potential**
- Independent testing shows **superior durability and chemical stability**

Our process is **patent-pending** and built for industrial consistency — every tonne performs to spec.

From Lab to Landmark Projects

Developed alongside leading researchers from the **University of Melbourne** and **RMIT**, and validated by major partners including **Holcim** and **Cement Australia**, SCG SAND is being used in landmark infrastructure like the **Melbourne Metro Tunnel**.

This isn't just science. It's **proven performance**.

Please see supporting images of our science attached on the next page:

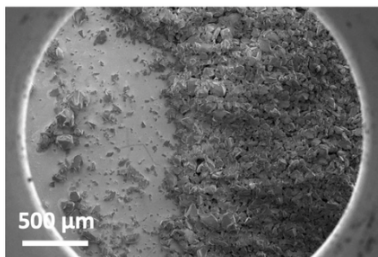
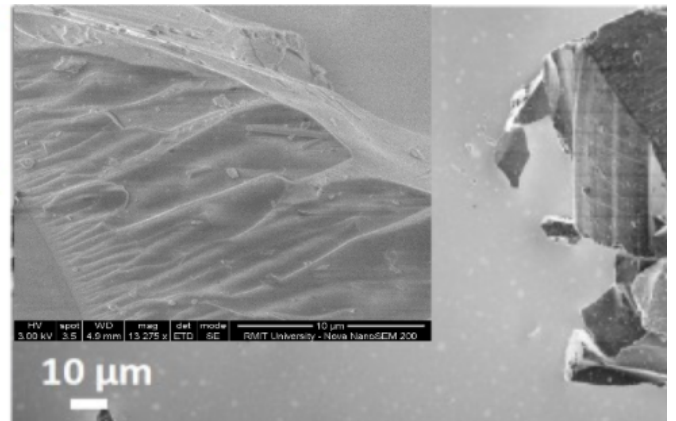
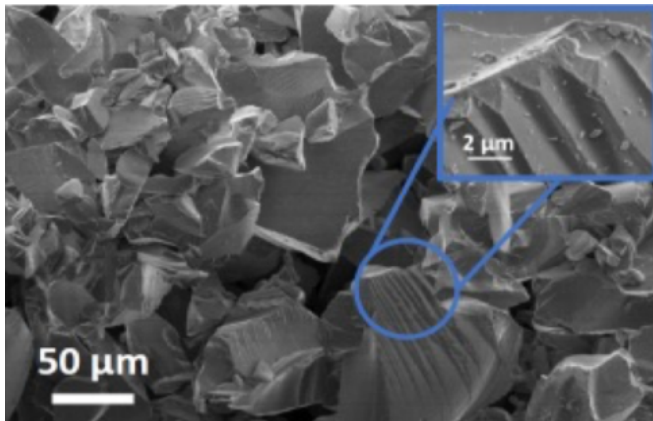
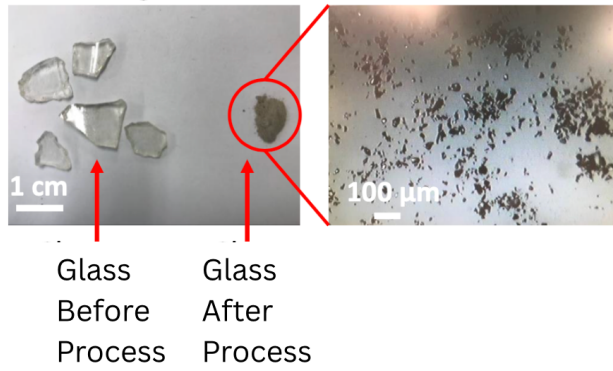


Fig. 4

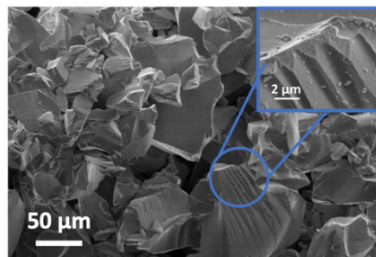


Fig. 5

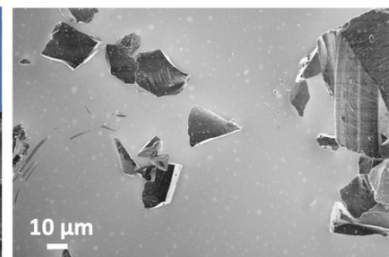


Fig. 6

Fig. 4 is a low magnification SEM image of VPG2, providing an overview of the particle size distribution. **Fig. 5** presents a higher magnification of the same sample, clearly showing surface shearing of the glass particles. The inset is a 25000X magnification, highlighting the detailed texture and surface disruption caused by processing. **Fig. 6** shows a high magnification SEM image of VPG2, illustrating the separation of individual particles.