

Self-compacting backfill: Flowable Backfill Material from Recycled Construction Waste

ASTRI's self-compacting backfill material is a high-performance solution engineered for pavement, utility trenches and slope works, transforming traditional backfilling practices. With over 30 completed projects representing 10,000m³ of material deployed, the technology is now expanding to Shanghai through collaboration with a development group in Shanghai for its local application.

Industry Challenges

Conventional soil-based backfilling requires layer-by-layer compaction — labor-intensive and time-consuming — causes serious traffic disruption

Major Benefits

- **Fast construction:** reduces works from days to hours, minimising traffic disruption
- **Enhanced safety:** ensures reliable construction processes
- **Superior thermal conductivity:** optimal for roads with underground utilities
- **Reliable quality control:** high flowability, ideal for complex backfill sites
- Sustainable composition incorporates up to 85% recycled construction waste

Application Areas

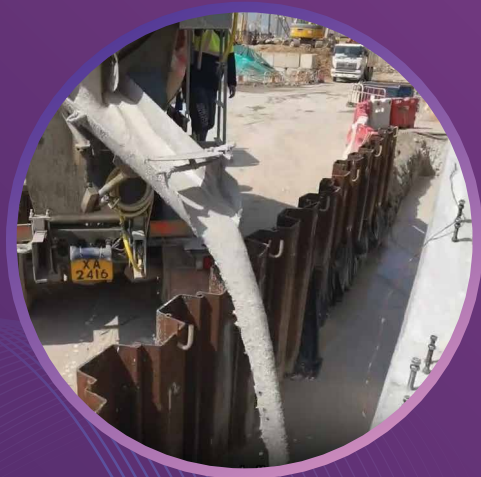
- Utility installations
- Pavement repairs and void filling
- Geotechnical works

Collaborator(s)

A civil engineering and heavy construction company, an infrastructure project financing company and a smart city and green construction material company

Award(s)

International Exhibition of Inventions Geneva



ASTRI's self-compacting backfill material delivers efficient, cost-effective, safe and reliable solutions for pavement, utility trenches and slope works

