

SoluForm Gravel Bagwork

Flexible | Permeable | Ready to Install



SoluForm

SoluForm Gravel Bagwork is a prefilled geotextile bag system containing graded gravel aggregate, designed for ground stabilisation, drainage, erosion protection and temporary or permanent works.

Key Benefits:

Prefilled and Ready to Use

- No requirement for filling bags on site
- Consistent bag size and aggregate quantity

Fast Installation

- Simple placement methodology
- Minimal specialist equipment required for many applications

Flexible Construction

- Follows ground contours and accommodates minor settlement
- Can be installed in staggered or interlocking courses

Drainage

- Gravel provides a highly permeable fill, allowing water to pass through the bagwork

Environmentally Considerate

- Lower impact alternative to traditional concrete or rock construction where a flexible, permeable solution is appropriate

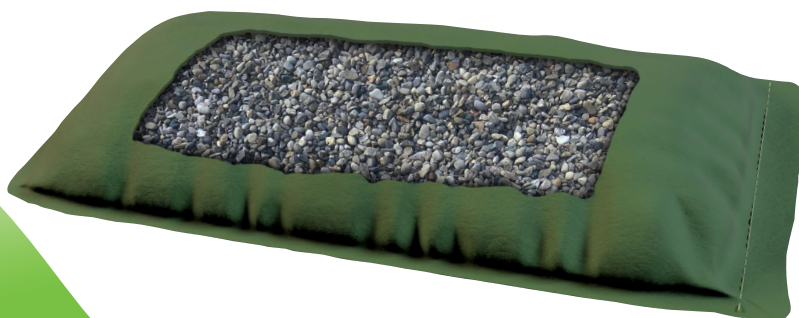
Typical Applications:

- Culvert and pipe crossings
- Temporary access roads and haul routes enabling works
- Construction access over soft ground
- Drainage channels and swales
- Riverbank and watercourse protection
- Foundation/base for soil bagwork retaining structures
- Slope stabilisation
- Temporary works
- Flood diversion solutions
- Ground improvement
- Protection around drainage outfalls

Technical Specification

Specification	Details
Bag material	Heavy duty woven / nonwoven geotextile (UVCA / CE compliant where required)
Fill material	Clean, graded 4-10mm Pea Gravel
Typical bag size	650 mm (L) × 300 mm (W) × 100 mm (H)
Typical fill weight	20 kg (approximately)
Delivery	Prefilled and ready to install
Installation	Hand placed / mechanical placement
Foundation	Prepared and levelled formation
Reinforcement	Shear keys where required

Cross Section of Gravel Bag Contents



Installation Guide:

Bagwork shall be laid in the indicated header and stretcher bond arrangement with joints staggered between adjacent courses.

Toe embedment shown is indicative and shall be increased where the bed material is erodible or scour or undermining may occur.

SoluForm shear keys shall be installed between courses in accordance with the manufacturer's current guidance. The final shear key arrangement shall be confirmed for the proposed bag interfaces.

Selected free draining granular backfill shall be placed and compacted progressively with the construction of the bagwork.

Final wall width, batter, embedment, bag arrangement, shear keys, anchoring, backfill, geotextile and any geogrid reinforcement shall be confirmed by the responsible designer.



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Environmental Considerations:

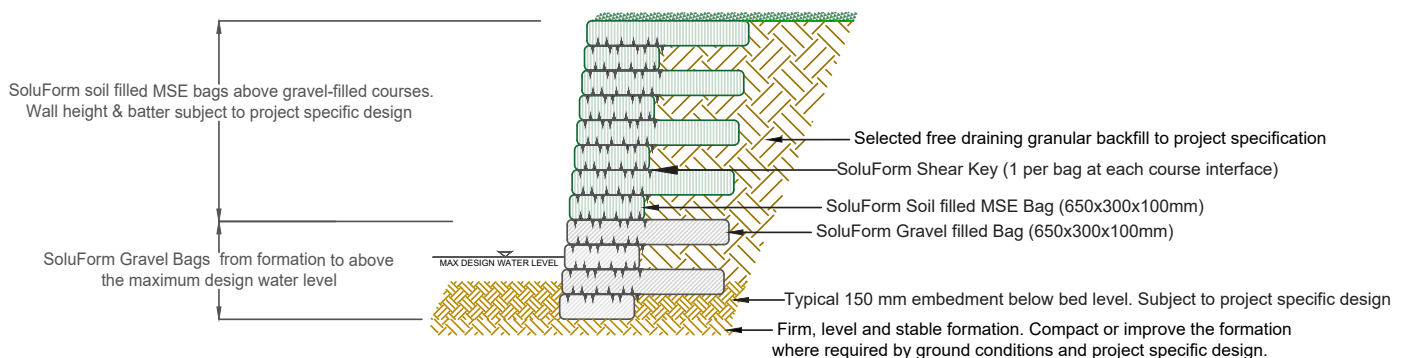
The gravel filled bagwork system can provide a lower impact alternative to traditional concrete or rock construction where a flexible, permeable solution is appropriate.

Environmental performance will depend on the geotextile material, gravel source, installation method and intended design life. If a biodegradable system is required, a biodegradable fabric such as hessian/coir should be specified separately.

The Bagwork System:

- Culverts & Crossings
- Drainage & Channels
- Erosion Protection
- Stability & Retaining

Simple & Effective



Design Considerations:

- Hydraulic flow velocities
- Scour forces
- Water levels
- Slope angle
- Ground conditions
- Required design life
- Bag dimensions and weight
- Backfill aggregate grading
- Geogrid requirements
- Filter requirements
- Shear key requirements
- Expected settlement
- Loading from vehicles or structures

Feature	Gravel Bagwork	Concrete Bagwork	Soil/MSE Bagwork	Gabion Baskets	Traditional (Type 1)
Permeable	✓	✗	✓	✓	✗
Flexible	✓	✓	✓	△	✗
Fast installation	✓	✓	✓	△	✗
Erosion protection	✓	✓	✓	✓	✓
Permanent solution	✓	✓	✓	✓	✗
Vegetation potential	✗	✗	✓	✗	✗

✓ Good △ Limited ✗ Not suitable