

Gravite™



Cement Bound Sub-base
CI 821 SHW 800

DAY ■ AGGREGATES

An Introduction to Gravite™

Gravite™ is a high-quality cement bound sub-base produced using the latest mix technology.

The product contains a mix of incinerator bottom ash aggregate (IBAA) and CEM 1 Portland cement which when mixed through our forced action mixer results in a compliant bound sub-base to Clause 821 of the Specification for Highways Series 800.

This material is suitable for a large range of applications including:

- Adoptable highways
- Car parks/compounds
- Haul roads
- Piling platforms
- Surfaced footpaths and walkways

Type 1 Sub-base Equivalent

The majority of pavement designs are based around the specifications set by National Highways and the Transport Research Laboratory (TRL).

Sub-base is typically placed at a minimum depth of 150mm using a bound or unbound granular material. Class 2 foundations are widely used and these can be achieved using either a Type 1 or CBGM C3/4.

Traditionally an unbound Type 1 is specified as historically this has been the most economic option. With the increase in availability it is likely IBAA will be more accessible than recycled aggregates.

Features & Benefits

- Reduction in sub-base levels
- Increased load rates (MPa)
- Sustainably sourced aggregate
- Up to 10% more coverage

Gravite™ Advisory Notes	
Compaction	As Type 1
Drainage	Not free draining
Minimum thickness	150mm
Temperature	3°C and rising
Trafficking	24 hours
Weather restrictions	Light rain, no standing water



Gravite™ Sub-base - Installation Method Statement

Placement

- Layers should be installed using a paver, grader or excavator
- Placement should be carried out in a way that avoids segregation and drying out of the surface
- The approximate compaction allowance will be 30-40mm for a 150mm layer
- The minimum compacted lift thickness should be 150mm
- The adjustment of levels after initial compaction should not be permitted
- The edge of previously compacted Gravite™ should be vertical and straight before fresh material is laid against it
- Placement should be complete within two hours of delivery

Compaction

- Compaction should be carried out by vibrating roller and consisting of two dead passes, followed by four vibrating and two dead passes to finish as per SHW Series 800
- In restricted areas a vibrating plate may be used
- On completion the surface should be closed, free from ridges, cracks, loose material and other visual voids or ruts

Curing, Protection & Trafficking

- On completion the bound layer requires a sprayed coating of bitumen emulsion (K140) or similar to aid moisture retention and promote curing. A rate of 0.40 litre/ m² is required
- Light trafficking and surfacing permitted after 24 hours, full trafficking after 7 days

Cold & Wet Weather Working

- Laying shall not be permitted on frozen ground
- Installation shall cease when the temperature falls below 3°C
- In case of heavy or persistent rain, laying shall cease and any laid material should be compacted immediately
- Do not place on saturated ground

Compaction testing may be required by the overseeing authority if installed in compliance to an adoptable highway standard.

Please consult safety data sheet before use.



Case Study - Gravite™ Bound Sub-base

Customer	Barkemp Construction Ltd
Site	Hawkhurst, Kent
Client	Millwood Designer Homes Ltd
Project	Estate Road
Product	Gravite™ CI 821

Project Description

Day Aggregates supplied 1,500 tonnes of Gravite™ sub-base for estate roads.

Used within a flexible composite design, the product helped reduce the overall thickness of the pavement design offering savings on aggregate purchase, muck away and additional lorry movements.

Key Benefits

- Reduced layer thickness
- Savings on excavation and muck away
- Spread rate improvement of 10% versus unbound sub-base
- Sustainable manufactured aggregate
- Increase in foundation performance



Case Study - Gravite™ Bound Sub-base

Customer	Cognition Land & Water Ltd
Site	Greenwich Peninsula
Client	Riverlinx Ltd
Project	Coach Park
Product	Gravite™ CI 821

Project Description

A temporary coach park was installed whilst construction of the Silvertown Tunnel took place.

Day Aggregates supplied 4,000t of Gravite™ sub-base within a two week period and laid at a 200mm depth. The product was supplied in compliance to Clause 821 of the Specification for Highways Series 800. A 200mm layer was placed using a laser guided D6 bulldozer and compacted with a 20 tonne vibratory roller.

Key Benefits

- Sustainable manufactured aggregate
- Spread rate improvement of 10% versus unbound sub-base
- Increase in foundation performance



Case Study - Gravite™ Bound Sub-base

Customer	Coinford Ltd
Site	Northfleet, Kent
Client	Countryside Properties Ltd
Project	Site Compound
Product	Gravite™ CI 821

Project Description

Day Aggregates supplied 500 tonnes of Gravite™ for use as a finished surface for a housing development compound and car park.

This provided the contractor with a sound and clean surface with minimal maintenance for site office accommodation, car parking and lay down areas for construction materials.

Key Benefits

- Sustainable manufactured product
- Impermeable to water
- Increased durability and life extension
- Clean running surface



Case Study - Gravite™ Bound Sub-base

Customer	R M Brookes Ltd
Site	Maidstone, Kent
Client	RAMAC Group Ltd
Project	Access Road
Product	Gravite™ C8/10

Project Description

A solution was sought to reconstruct an existing haul road suffering failures due to groundwater presence.

Day Aggregates provided a design incorporating a capping layer topped with a 200mm layer of Gravite™ as a running surface for associated construction traffic.

Key Benefits

- Increased durability and life extension
- Clean running surface
- Sustainable manufactured aggregate
- Impermeable to water





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Day Aggregates supplies natural and recycled aggregates
to the construction and civil engineering industry.