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SPECIFICATION FOR

SLAB/BRICK/SETT/COBBLE PAVINGS

SECTION Q24/Q25

Q24 INTERLOCKING BRICK/ BLOCK ROADS/ PAVINGS 110/115 CONVENTIONAL CONCRETE BLOCK PAVING OVERLAY

To be read with Preliminaries/General conditions.

GENERALLY

120 UN-BOUND SUB BASE DETAIL

(To be considered in event of services etc. requiring access)

Granular sub-base: Highways Agency Specification for Highway Works Type 1.

- Thickness: 120mm to 150mm.

Base/ bedding: 3mm bedding grit or to engineers detail

- Thickness: 50mm.

Paving units: As detailed below

120 BOUND SUB BASE DETAIL

(Pedestrian, Vehicular traffic and Services allowed for)

CBM sub-base: Highways Agency Specification for Highway Works.

- Thickness: 120mm to 150mm reinforced concrete slab

Base/ bedding: BS 7533 recommended pure hydraulic bedding mortar which must include up to 70% crushed igneous rock, free of polymer & resin. Flexural strength 7N/mm²

- Thickness: 40mm. (can be 30mm to 70mm depending on engineer detail)

Refer to Alan Smyth Consultancy 00353 86 1730156

Design Standard: BS 7533-1:2001 (Heavy Traffic) or BS 7533-2:2001 (Light Traffic)

Laying Standard: BS 7533-3:2005

390 UNBOUND PAVING JOINTING MATERIAL

Standard: To BS 7533-4, Kiln dried jointing material brushed to joints of paving.

BOUND PAVING JOINTING MATERIAL

Hydraulic naturally free flowing grout mortar, free of polymer and resin activated by water and squeezed to joints of paving. Resistant to frost and de-icing salts.

PRODUCTS

315 CONCRETE FLAGS/ BLOCKS FOR PAVED AREAS

Standard: To BS EN 1338/1339:2003.

- Manufacturer: Acheson & Glover or equal approved by Architect
- Product reference: Plaza & Kin Stone Paving Surfaces are a range of small to large element paving manufactured from premium quality selected granite and other natural quartz aggregates. The textured surface is created using a 3 stage Water Etching jet process which exposes and retains up to 90% of the granite (Plaza) & quartz aggregate (Kin Stone) stone in the face of the unit. Suitable for pedestrian/ light and heavy traffic (with design assistance)

Product reference: Plaza/ Kin Stone
Colour: Silver / Slate / Sandstone/ Graphite/ Cream/ Arno Green/
Pearl Blue/ Cashel Red/ Natural
Surface: 3 Stage Water Etched Textured Aggregate

Nominal Sizes:

600 x 200 x 80mm	200 x 100 x 60mm
400 x 400 x 80mm	100 x 150 x 60mm
400 x 200 x 80mm	150 x 150 x 60mm
200 x 200 x 80mm	200 x 150 x 60mm
200 x 100 x 80mm	300 x 150 x 60mm

1000 x 400 x 120mm

Mixed Size Pack

200 x 100, 200 x 200, 200 x 300 x 60mm

525 x 315, 420 x 315, 315 x 315, 210 x 315 x 50mm

Jointing Material: As per engineers detail for Bound or Unbound system

Manufacturing & Performance

Manufacturer. AG Ltd – www.acheson-glover.com

Product Type. Concrete Paving Block

Manufactured to. BS EN 1338/1339:2003

Surface Layer. Durable high performance hard wearing easy maintenance layer of minimum 4mm and >350kgs/m² cement

Granite Content. Not less than 90% of granite aggregate (Plaza) in surface layer manufactured with Water-Etching process

Efflorescence. Minimum 12 hour vapour curing too significantly reduce the risk

Strength. >3.6MPa

Slip/ Skid Resistance. Extremely Low (>75 USRV)

Spacer. Unique spacer design to increase interlocking shift protection

LRV & SRI Rating. AG Technical Dept. can provide colours that meet regulation

Installation. BS 7533-3:2005

Application. These products are suitable for public realm pedestrian and light traffic use. With correct technical guidance on sub base design heavy duty vehicle access can be considered. The latest British Standard data on sub base design should be consulted prior to installation.

Sustainability

Energy Used. 100% renewable

Water Used. 100% Harvested

Carbon Footprint

Value. 32 to 34kg @ unit of Co₂/m²

Recyclable. 100% of this product is recyclable

Recycled Content. Not less than 60% recycled material

Manufacturing Location. Located in UK using locally sourced material

BREEM Rating. A+B, in accordance with the Green Guide to Specification, 4th Edition 2009. A full A rating can be secured using a recycled sub base design as per guidance from the Green Guide to Specification 4th Edition 2009. www.bre.co.uk

Refer to Jim Fanning of Acheson & Glover 00353 86 0452611/ 0044 7850 795575

Ancillary products:

Xflo permeable paving blocks 255x170 & 170x170 (80mm thick) are also available in finish and colours – specify in clause Q24 115.

A range of textured Natural Aggregate Kerbs are available that compliment - specify in clause Q10 110.

320 TACTILE FLAGS AND SLABS AT DESIGNATED PEDESTRIAN CROSSING POINTS

Standard: To BS 7997.

Material: precast concrete

- Manufacturer: Contractor's choice

Product reference: N/A

Nominal sizes: 450mm x 450mm

Colour: Buff

EXECUTION

620 ADVERSE WEATHER

General:

- Temperature: Do not lay or joint paving if the temperature is below 3°C on a falling thermometer or below 1°C on a rising thermometer.

- Frozen materials: Do not use. Do not lay bedding on frozen or frost covered bases.

Paving with mortar joints and/ or bedding:

- Protect from frost damage, rapid drying out and saturation until mortar has hardened.

Paving laid and jointed in sand:

- Stockpiled bedding grit: Protect from saturation.

- Exposed areas of sand bedding and uncompacted areas of sand bedded paving: Protect from heavy rainfall.

- Laying dry-sand jointed paving in damp conditions: Brush in as much jointing sand as possible. Minimize site traffic over paving. As soon as paving is dry, top up joints and complete compaction.

625 LAYING PAVINGS – GENERAL

Appearance: Smooth and even with regular joints and accurate to line, level and profile.

Falls: To prevent ponding.

Bedding of paving units: Firm so that rocking or subsidence does not occur or develop.

- Bedding/ Laying course: Consistently and accurately graded, spread and compacted to produce uniform thickness and support for paving units.

Slopes: Lay paving units upwards from the bottom of slopes.

Paving units: Free of mortar and sand stains.

Cutting: Cut units cleanly and accurately, without spalling, to give neat junctions with edgings and adjoining finishes.

630 LEVELS OF PAVING

Permissible deviation from specified levels:

- Generally: ±6mm.

Height of finished paving above features:

- At gullies: +6 to +10mm.
- At drainage channels and kerbs: +3 to +6 mm.

635 REGULARITY

Maximum variation in gap under a 3m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface): 10mm.
Sudden irregularities Not permitted.

640 COLOUR BANDING

General: Unless premixed by manufacturer, select from at least 3 to 5 separate packs in rotation to avoid colour banding.

645 PROTECTION

Cleanliness: Keep paving clean and free from mortar droppings, oil and other materials likely to cause staining.

Materials storage: Do not overload pavings with stacks of materials.

Handling: Do not damage paving unit corners, arrises, or previously laid paving.

Mortar bedded pavings: Keep free from traffic after laying:

- Pedestrian traffic (minimum): on protected designated areas only
- Vehicular traffic (minimum): not permitted.

Access: Restrict access to paved areas to prevent damage from site traffic and plant.

650 CEMENTITIOUS BASES AND SUB-BASES

General: Protect from moisture loss, if not covered by another pavement course within 2 hours of completion.

655 CONDITION OF SUB-BASES/ BASES BEFORE SPREADING LAYING COURSE

Trenches and excavation of soft or loose spots in subgrade: Fill and thoroughly compact.

Granular surfaces: Lay and compact so as to be sound, clean, smooth and close-textured enough to prevent migration of bedding/ laying course materials into the sub-base during compaction and use, free from movement under compaction plant and free from compaction ridges, cracks and loose material.

Prepared existing and new bound bases (roadbases): Sound, clean, free from rutting or major cracking. Remove sharp stones, projections and debris.

Sub-base/ Roadbase level tolerances: To BS 7533-7, Annex A.

Levels and falls: Accurate and within the specified tolerances.

Drainage outlets: Within 0–10mm of the required finished level.

Features in sand bedded paving (including mortar bedded restraints and drainage ironwork):

Complete to required levels; adequately bed and haunch in mortar.

Sub-bases containing cement/ hydraulic binder: Cure for minimum times specified in BS 7533-4.