



Aggregate Concrete Blocks Good Site Practice

Introduction

Care needs to be taken in the use of aggregate concrete blocks such that mishandling, incorrect stacking and lack of protection are avoided. It is important for the designer/user to indicate clearly how the units should be installed.

Site Planning

Whenever possible it should be ensured that blocks are delivered and stacked in planned positions as near to the point of use as possible to avoid double handling.

Delivery to Site

Blocks may be delivered cube-packed in a number of ways to suit client requirements. Packs which are usually banded may also be palletised, shrink wrapped etc, for mechanical off-loading by lorry mounted crane or by fork lift. All packaging should be carefully disposed of in accordance with local environmental requirements.

Storage & Protection

Off-loaded units should be stacked carefully on a prepared, clean, level, firm area to minimise soiling, chipping and breakage. Stacks should be protected from inclement weather and from soiling from the ground and passing traffic. Whenever possible air should be allowed to circulate around and through the stacks.

Manual Handling

Careful consideration of the blocklayer's working area can contribute significantly to safe working. Points to take into consideration should include:

- Move units in packs by mechanical means whenever possible.
- Load units out to above knee height.
- Ensure that normal protective equipment appropriate to construction sites is both provided and used.
- Ensure that appropriate eye protection equipment and dust suppression or extraction measures are provided when mechanically cutting or chasing units.

For further information on manual handling see CBA Data Sheet 13 – Safe Handling and Use of Concrete Blocks.

Blocklaying

Cold Weather Conditions

Blocks should not be laid when the temperature is at or below 3°C and falling or unless it is at least 1°C and rising.

Laying

Solid and cellular blocks should be laid on a full bed of mortar and vertical joints substantially filled. Hollow blocks should be shell bedded with the vertical joints filled.

Do not wet the blocks before laying. Where necessary adjust the consistency of the mortar to suit the suction of the units.

When laying Facing or Architectural masonry blocks select the blocks from more than one pack as work proceeds to reduce the risk of banding or patchiness of colour in the finished walling.

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Good Site Practice

Bond

Blocks should be laid to achieve a good bond normally not less than one quarter the length of the block. Other patterns may require the inclusion of bedjoint reinforcement.

Daily Lift Heights

Lift heights will be affected by block thickness, weight, type of block, wall type and mortar mix employed. Weather conditions will also affect lift heights and they may need to be restricted in inclement weather. Generally lift heights should be restricted to 6 full block courses (approx. 1350mm) in a working day.

In cavity walls, the two leaves should be brought up together and the difference in leaf height at any stage during construction should generally not exceed 675mm.

Cutting & Chasing

Where site cutting of blocks is necessary, the use of a central cutting station should be encouraged. Cutting residue should be removed completely from units before they are used. Vertical chasing should be restricted to 1/3 block thickness and horizontal chasing to 1/6 block thickness. Back to back chases should be avoided.

Jointing

Joints should not be left proud but struck off as work proceeds.

Flush joints are recommended for facing work or work to be decorated. Lightly tooling the joint highlights the clean arrises of the blocks, accuracy of the coursing and enhances the scale and appearance of the walls. Exposed raked joints should be used with caution and limited to the highest quality of block (Architectural masonry) and workmanship.

Protection of Finished Work

Blockwork should be protected from inclement weather and when required from other building operations with weatherproof sheeting which must be properly tied down. Care must be taken to cover all new work particularly if there is a likelihood of frost or extreme hot or cold weather.

Sample Panels

For close textured/paint grade, Facing and Architectural masonry, sample panels of representative blocks and mortar to agree texture, colour (when relevant) appearance and standards of workmanship, should be constructed on site and approved by all parties.

To receive other data sheets in this series, a list of CBA members or for further information, please contact Concrete Block Association.

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