

the use of Aircrete in EXTERNAL WALLS

Used for rendered or tile-hung external wall constructions, Aircrete offers the labour-saving benefits of fast build whilst being one of the cost-effective overall forms of construction using traditional skills. Easy to handle and quick to lay, Aircrete's superior thermal performance in most cases minimises the need for expensive cavity insulation.

THERMAL PERFORMANCE

Because of their inherent insulation properties, exceptional thermal performance can be obtained when cavity or solid walls are specified using Aircrete blocks.

CHOOSING THE RIGHT BLOCK

All Aircrete blocks are suitable for use in external walls when used in conjunction with render or an appropriate cladding system. Most can be directly rendered, but may need a simple render reinforcement when used in certain conditions.

INCREASED PRODUCTIVITY

Due to Aircrete's lightweight characteristics, progress is rapid and less demanding than with denser materials. There is reduced compression of the mortar bed, so a greater number of courses can be constructed than with heavier types of masonry. This means that in its solid wall format, an extremely stable Aircrete wall construction can be completed in around half the normal time. One Aircrete block can cover the same area as up to twelve bricks yet, up to a thickness of 150mm, this is still just a one-hand lift.

PROVEN STRENGTH

Aircrete blocks are available in a range of strengths from 2.8N/mm² to 8.4N/mm², making them suitable for most applications.

BETTER BY DESIGN

As with all masonry, the design should be in accordance with BS5628. The use of traditional render on Aircrete should be done in accordance with BS5262:1991. For further information or advice on the use of Aircrete in external walls please refer to the Technical Design Services of member companies at the numbers given overleaf.



HIGHLY DURABLE

British Board of Agrément accredited Aircrete is resistant to moisture and rot, making its long-term performance reassuringly predictable. Its micro-cellular structure produces superior thermal properties and also give Aircrete the desired low permeability to resist water or air and ensures it is fully frost resistant.

Where clay soils are encountered, BBA certification confirms Aircrete's suitability for sulfate classes DS1 to DS4.

EXTERNAL PROTECTION

The coastal location of Palmeira Avenue created a demanding environment for the materials to be used on the external elevations of this new apartment building at Westcliff-on-Sea, Essex.

This was a key consideration for builders, FocusTime Developments as well as the local planning authority. And yet this was only one of the reasons why Aircrete blocks were chosen for the external leaf construction, creating a strong, fully frost-resistant structure onto which the render could be applied directly without the need for further preparation. The application of a roughcast render finish matched the style of other buildings in this conservation area, whilst conferring all of the numerous additional benefits that Aircrete will be able to offer.

Indeed this versatility is one of the reasons FocusTime have endorsed Aircrete as a preferred material in a wide range of applications. It offers excellent thermal performance, so allowing considerable flexibility in the selection of insulation materials and plaster finishes - in many cases minimising the need for secondary insulation. This, together with the ease of build and speed of completion, brings demonstrable cost savings, with construction times reduced by up to 50% compared to twin-leaf brick constructions.

Aircrete's cell structure is the key to its light weight, a naturally strong matrix easily exceeding the compressive strength requirements for this three-storey building, yet allowing the on-site convenience of cutting and shaping using ordinary hand tools.

Nails are simply driven in for most stages of carpentry fixing, whilst proprietary or toothed plugs can be used with confidence for securing even the heaviest of weights.



PROTECTION & HANDLING ON SITE

Blocks should be unloaded on to a dry, level surface and covered to protect them from inclement weather.

FOR MORE INFORMATION

This publication is only intended to be an outline guide to Aircrete products. You are advised to contact respective Aircrete Bureau members for more comprehensive technical support and guidance, and extensive technical literature covering every aspect of designing and working with Aircrete products.



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