

# FOUNDATION UNITS

## DESCRIPTION

Foundation units are manufactured using selected lightweight and dense aggregates, binder is standard Ordinary Portland Cement, or to special order, Sulphate Resisting Cement. The unit weight is less than 20kg, thereby assisting handling and laying.

*Manufactured to BS EN 771-3 and associated test standards*

- Cost Savings Compared to Brick Solid Walling
- Dimensions to Accommodate Variable Cavity Wall Sizes
- High Productivity, One Unit Equal to 12 Brick Units
- No Cavity to Form, No Wall Ties
- Saving in Quantity of Mortar Used
- Units are Durable, Low Wastage
- Unit Weight less than 20kg

## APPLICATION AND CLASSIFICATION

The units are intended for solid walling at or below DPC level to support both internal or external perimeter walls, including use in sulphate soil classes DS-1, DS-2 and DS-3. For other soil classifications, Type SR Foundation units are available to special order, manufactured using Sulphate Resisting Cement binder as specification determined in BRE Special Digest 1.

## PHYSICAL PROPERTIES

Relationship of Density/Strength.

EN772-13 Gross Dry Density - Category II Materials.

1300 kg/m<sup>3</sup> - 7.3 N/mm<sup>2</sup>.

EN 772-13 Gross Density

## CHARACTERISTIC COMPRESSIVE STRENGTH

Wall design in accordance with BS 5628-1, the fk value may be taken as 3.0N/mm<sup>2</sup> using mortar grade (iii).

## MODULUS OF ELASTICITY

Static modulus of Foundation units is 10kN/mm<sup>2</sup>.

## DURABILITY

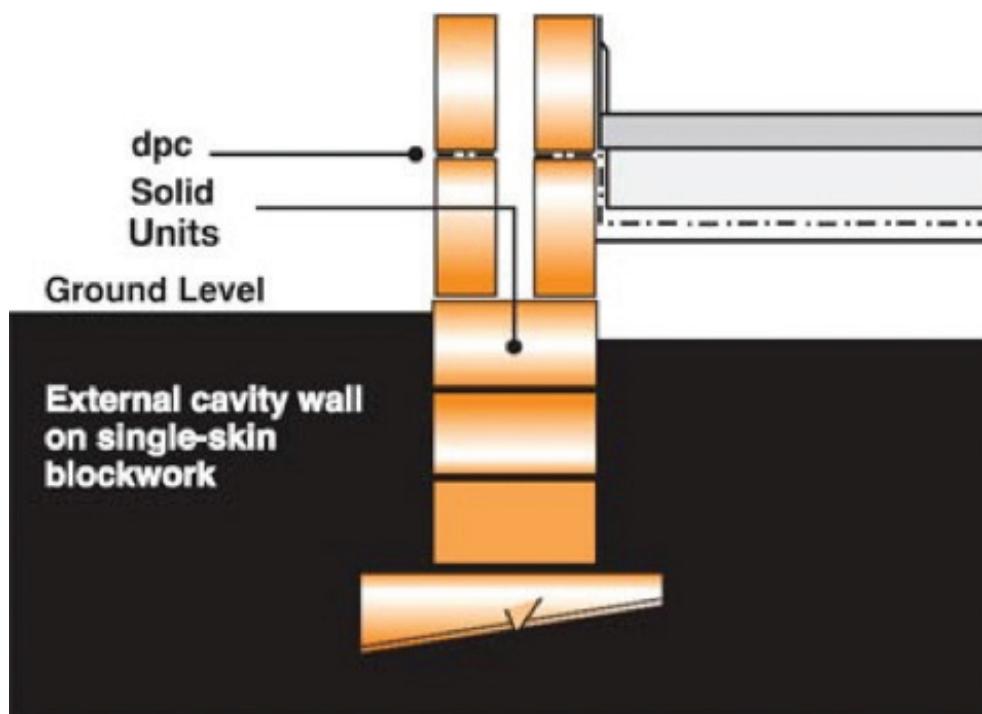
Assessments on the performance of concrete units below ground has indicated that this product is completely satisfactory in the soil classifications noted.

## DIMENSIONS

Tolerances as EN 771-3, Table 1 and EN 772-16, category D1.

Unit length and height +3, -5 mm.

Unit width average +3, -5 mm.



## DESIGN PROPERTIES FOUNDATION

### MOISTURE MOVEMENT

As tested to EN 772-14 : 2002.

Total movement = 0.37mm/m.

### DURABILITY AGAINST FREEZE THAW

Suitable for use below ground in accordance with PD 6697.

### SHEAR BOND STRENGTH

Declared Value 0.15N/mm<sup>2</sup>, EN 998-2 Annex C.

## *THERMAL CONDUCTIVITY (STANDARD VALUES)*

Lamda (K) Value to CIBSE Guide Book A 1999.

3% moisture content 0.50W/mK, 5% moisture content 0.54W/mK.

## *FIRE RESISTANCE*

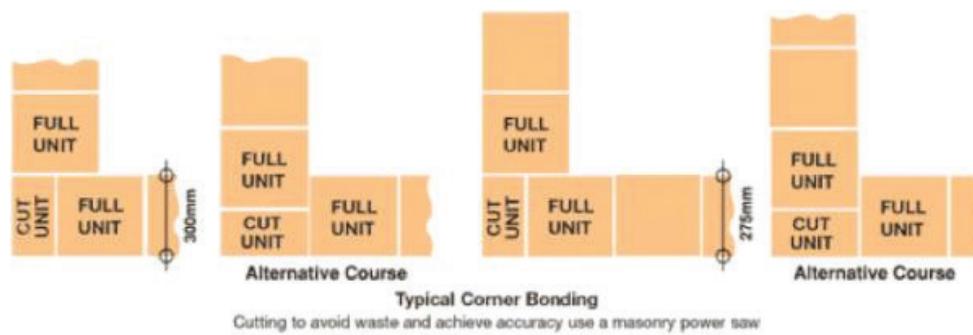
Foundation units are “Euroclass A1” as defined in EN ISO 1182.

## *WATER VAPOUR PERMEABILITY*

EN 1745 : 2002 Table A3 water vapour diffusion coefficient  $\mu$  5/15.

## *INSTALLATION*

The units are laid onto a mortar bed on a concrete foundation in the normal manner. Mortar mix, unless specified by the Engineer, is to be a grade (iii) i.e. 1.1.6. cement, lime, sand. Joint thickness to be a nominal 10mm; the distance between horizontal joints of adjoining unit courses should not be less than 75mm. The bonding of courses should be formed in accordance with the diagrams shown.



## *QUALITY CONTROL*

Interfuse Ltd operates a formalised Quality Assurance system at both Syston and Gainsborough plants. All masonry units are subject to stringent quality control checks and are tested daily in our own laboratory.

A documented factory production control system is in operation with regular checks made on raw materials, production and finished units. A stock control system is in operation with written procedures for non-conforming products. All products are produced to the current European Standards.

## *MARKING*

Each pack is marked for traceability of product and unit clarification as given on the delivery ticket.

## PURCHASING DATA

Face Work Size. 300mm x140mm or 275mm x 140mm, tolerances to EN 771-3.

300mm X 275mm X 140mm			
WEIGHT PER UNIT	UNITS PER PACK	UNITS PER m <sup>2</sup> 275MM WIDE WALL	UNITS PER m <sup>2</sup> 300MM WIDE WALL
15.75 kg	54	21.5	23.4

## LOAD SIZES

Load sizes may vary between 19 tonnes rigid and 24-27 tonnes artic lorries. We recommend that packs be stored on clear, level ground no more than two cubes high, and close to where they are to be used. The workforce should be fully trained in both Health & Safety at Work and Manual Handling principles. The safe handling of units is covered by the Construction Industrial Advisory Committee on an HSE information sheet.