

# Evalast Background

**Mean compressive strength: 7.3 - 30.0N/mm<sup>2</sup>**

**Thermal conductivity: 1.32W/m.K internal, 1.42W/m.K external**

**Dry density: 1990 kg/m<sup>3</sup>**



## Evalast Background

Manufactured to BS EN 771-3 from crushed rock or gravel aggregates to BS EN 12620 and Portland cement.

Evalast Background blocks are dense aggregate blocks which can be used in virtually any part of a project above or below ground, in normal conditions. Their performance makes them especially applicable to partition and separating walls where good sound insulating qualities and high strengths are required. They can also be used as infill blocks in beam and block flooring systems.

## Applications

### Acoustics

The high density of Evalast Background blocks gives them excellent sound insulation properties. When laid to form a sound separating wall, they achieve the required mass as given in the Building Regulations and Robust Details.

## Flooring

Evalast Background blocks are suitable as infill blocks for beam and block flooring systems. They should be specified as 'for flooring'; in order that the correct manufacturing base is sourced.

## Strength

Having high density, with associated strengths, Evalast Background blocks easily achieve the durability requirements for use above and below ground. They can be used in normal and sulphate soil conditions equivalent to classification DS-3.

## Thermal

Evalast Background blocks, in conjunction with suitable thicknesses of insulation are able to provide high levels of thermal insulation.

## Fire

Concrete is an excellent fire resistant material.

Evalast Background products are manufactured from either Class 1 (limestone) or Class 2 (gravel and crushed stone) aggregates. Where fire resistance is important it is essential that the class of aggregate is specified.

## Coursing blocks

To complement the range, 22.5N/mm<sup>2</sup> coursing units (brick size) are available for use in conjunction with 7.3N/mm<sup>2</sup> 100mm Evalast Background blocks, and 22.5N/mm<sup>2</sup> full length units are available for 140mm thick products.

## Finishes

The nature of Evalast Background blocks classes them, for the purpose of rendering and plastering, as a relatively low suction background. They can be either smooth or rough in texture, depending upon manufacturing location. As such, the correct specification for the applied finishes should be provided. In the case of dense sand cement plasters applied to smooth blocks, it is recommended that, in addition to raking out of the joints, an adhesive slurry, spatterdash or stipple coat is applied to the block surface prior to the application of the first undercoat. The high strengths and close internal texture of Evalast Background blocks mean that excellent fixing can be achieved using a variety of patent fixings.

Note: Evalast blocks are not intended to be left fair faced or painted and should have a finish (plaster, render plasterboard, cladding, etc.) applied where the wall is to have visual importance.

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## Material properties

|   |                     |                           |
|---|---------------------|---------------------------|
| Thermal conductivity W/m.K                  | internal            | 1.32                      |
|   | external            | 1.42                      |
| Dry density kg/m <sup>3</sup>               |                     | 1990                      |
| Total moisture movement mm m <sup>-1</sup>  |                     | < 0.55                    |
| Vapour resistivity MN.s/g.m                 |                     | 100                       |
| Mean compressive strength N/mm <sup>2</sup> | solid               | 7.3, 10.4, 17.5, 22.5, 30 |
|   | hollow              | 7.3, 10.4                 |
|   | 100mm coursing unit | 22.5                      |
|   | 140mm coursing unit | 22.5                      |
| Shear bond strength N/mm <sup>2</sup>       |                     | 0.15                      |
| Fire classification                         |                     | A1                        |
| Flatness mm                                 |                     | < 1.0                     |
| Water vapour permeability                   |                     | 5/15                      |
| Dimension tolerance classification          |                     | D1                        |
| Configuration                               | †Group 1            | ‡Group 2                  |



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## Dimensions, weights and properties

| Work size mm | Width mm | Configuration      | Thermal Resistance m <sup>2</sup> K/W |          | Dry block weight kg | Weight laid kg/m <sup>2</sup> | Sound reduction dB | Fire resistance (hours)         |             |             |             |
|--------------|----------|--------------------|---------------------------------------|----------|---------------------|-------------------------------|--------------------|---------------------------------|-------------|-------------|-------------|
|              |          |                    | internal                              | external |                     |                               |                    | Single leaf - no applied finish |             | loadbearing |             |
|              |          |                    |                                       |          |                     |                               |                    | Class 1 agg                     | Class 2 agg | Class 1 agg | Class 2 agg |
| 440 x 215    | 100      | Solid †            | 0.076                                 | 0.070    | 18.8                | 203                           | 43                 | 2                               | 2           | 2           | 2           |
|              | 140      | Solid †            | 0.106                                 | 0.099    | 26.4                | 285                           | 46                 | 4                               | 3           | 3           | 2           |
|              | 215      | Hollow ‡           | 0.209                                 | 0.200    | 24.5                | 268                           | 45                 | 6                               | 6           | 2           | -           |
| 290 x 215    | 140      | Easilift Solid †   | 0.106                                 | 0.099    | 17.4                | 285                           | 46                 | 4                               | 3           | 3           | 2           |
| 290 x 140    | 215      | Easilift Solid †   | 0.163                                 | 0.151    | 17.4                | 436                           | 48                 | 6                               | 6           | 6           | 2           |
| 215 x 65     | 100      | Coursing unit †    | 0.078                                 | 0.073    | 2.9                 | 207                           | 43                 | 2                               | 2           | 2           | 2           |
| 440 x 65     | 140      | Coursing unit †    | 0.106                                 | 0.099    | 8.0                 | 283                           | 46                 | 4                               | 3           | 3           | 2           |
| 440 x 100    | 215      | 100mm laid flatt † | 0.163                                 | 0.151    | 18.8                | 435                           | 48                 | 6                               | 6           | 6           | 2           |
| 440 x 140    | 215      | 140mm laid flat †  | 0.163                                 | 0.151    | 26.4                | 436                           | 48                 | 6                               | 6           | 6           | 2           |



All Forterra aggregate blocks incorporate Regen<sup>®</sup> in their manufacture which reduces their CO<sub>2</sub> emissions by up to 30%. Regen<sup>®</sup> is Ground Granulated Blast furnace Slag (GGBS), which is a cement substitute manufactured from a by-product of the iron-making industry. Each tonne of Regen<sup>®</sup> used reduces the embodied CO<sub>2</sub> by around 850kg, compared to using Portland Cement, and also increases its durability.