Evalast Background

Mean compressive strength: 7.3 - 30.0N/mm²
Thermal conductivity: 1.32W/m.K internal, 1.42W/m.K external
Dry density: 1990 kg/m³

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/mm² coursing units (brick size) are available for use in conjunction with 7.3N/mm² 100mm Evalast Background blocks, and 22.5N/mm² 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.

Material properties

Thermal conductivity W/m.K	internal	1.32
	external	1.42
Dry density kg/m^3		1990
Total moisture movement mm m^{-1}		< 0.55
Vapour resistivity MN.s/g.m		100
Mean compressive strength N/mm^2	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^2		0.15
Fire classification		A1
Flatness mm		< 1.0
Water vapour permeability		5/15
Dimension tolerance classification		D1
Configuration	†Group 1	‡Group 2

Evalast Background

Dimensions, weights and properties

Work size mm	Width mm	Configuration	Thermal Resistance m^2 K/W internal	external	Dry block weight kg	Weight laid kg/m^2	Sound reduction dB	Fire resistance (hours) Single leaf - no applied finish non loadbearing Class 1 agg	non loadbearing Class 2 agg	loadbearing Class 1 agg	loadbearing 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	0099	8.0	283	46	4	3	3	2
440 x 100	215	100mm laid flat†	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

REGEN® INSIDE

All Forterra aggregate blocks incorporate Regen® in their manufacture which reduces their CO_2 emissions by up to 30%. Regen® 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® used reduces the embodied CO_2 by around 850kg, compared to using Portland Cement, and also increases its durability.