

## Product Data Sheet

## TOPLITE GTI 3.6N/mm<sup>2</sup>

TARMAC TOPBLOCK - Toplite GTI 3.6N/mm<sup>2</sup>

### Identification

#### Introduction

Toplite GTI blocks have been developed with a superior compressive strength of 3.6N/mm<sup>2</sup> making them suitable for an even greater range of applications.

Not only are they extremely light and easy to use, they retain the characteristic low thermal conductivity ( $\lambda = 0.11$ ) applicable to any GTI product. Therefore compared to denser blocks less additional insulation is required in meeting Part L thermal standards.

#### Authority

Toplite GTI 3.6N/mm<sup>2</sup> blocks conform to BS EN 771-4 and are manufactured under a Quality System complying with BS EN ISO 9001.

#### Appearance and Identification

Toplite GTI 3.6N/mm<sup>2</sup> blocks have a white medium textured surface, and are supplied in labelled shrink-wrapped packs.

#### Thickness and Weights

| Block Width (mm)                 | 75  | 100 | 125 | 140 | 150 | 215 |
|----------------------------------|-----|-----|-----|-----|-----|-----|
| Unit Weight (kg)                 | 3.4 | 4.5 | 5.6 | 6.3 | 6.7 | 9.6 |
| Laid Weight (kg/m <sup>2</sup> ) | 42  | 56  | 70  | 78  | 84  | 121 |

Unit and laid weights are given for design purposes and are approximate based on 3% moisture content.

#### Applications

Toplite GTI 3.6N/mm<sup>2</sup> blocks can be used for all general purpose walling including:

- Inner leaves
- Solid external walls
- Internal partitions
- Walls below ground – up to and including DS-1 and DS-2 sulfate soil conditions.

For use in separating walls higher density Toplite products must be used.

#### Material Properties

|   |      |
|---|------|
| Mean compressive strength to BS EN 771-4 (N/mm <sup>2</sup> ) | 3.6  |
| Material dry density (kg/m <sup>3</sup> )                     | 460  |
| Thermal conductivity (W/mK) @ 3% moisture content             | 0.11 |

### Sizes

Face size dimensions are 440 x 215mm. Available in block widths of 75, 100, 125, 140, 150 and 215. Please enquire for the availability of other sizes.



### Technical Performance

#### Fire Resistance

Toplite GTI 3.6N/mm<sup>2</sup> blocks are non-combustible and conform to Class O rating for the surface spread of flame. The fire resistance values shown are in accordance with UK National Annex to Eurocode 6 : Design of Masonry structures Part 1 - 2.

#### Fire resistance of single leaf wall – no finish

| Fire resistance (hours)         | 1   | 2   | 4   |
|---------------------------------|-----|-----|-----|
| Minimum GTI wall thickness (mm) |     |     |     |
| Loadbearing wall                | 100 | 125 | 150 |
| Non-loadbearing wall            | 75  | 75  | 150 |

#### Thermal Insulation

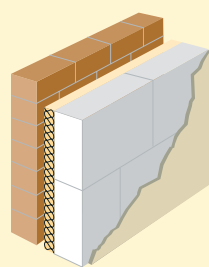
Toplite GTI 3.6N/mm<sup>2</sup> blocks may be used in conjunction with additional insulation to meet Part L thermal standards of the Building Regulations. The wall U-value will be dependent on the SAP calculation requirements for each dwelling type. Some typical examples are shown overleaf.

#### Sound Insulation

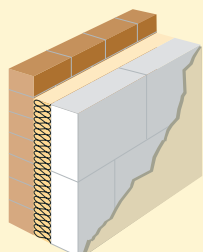
Toplite GTI 3.6N/mm<sup>2</sup> blocks can be used in external flanking walls in conjunction with an approved separating wall. It can also be used to provide acoustic insulation between internal rooms. The Building Regulations Approved Document E requires certain internal walls in dwellings to meet a performance standard of 40Rw dB. This can be met, for example, using a 100mm Toplite GTI 3.6N/mm<sup>2</sup> wall finished with plaster or dry lining.

| Finish   | No finish | Lightweight plaster | Drylining |
|--|-----------|---------------------|-----------|
| GTI: weighted sound reduction index, (R <sub>w</sub> dB) |           |                     |           |
| 100mm  | 38        | 41                  | 40        |
| 140mm  | 41        | 43                  | 43        |
| 215mm  | 46        | 48                  | 48        |

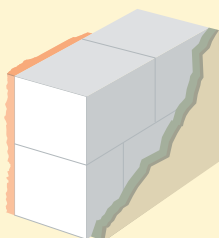
## U - Values of external walls



| Partial cavity fill blockwork | 0.30 W/m <sup>2</sup> K or better   | 0.27 W/m <sup>2</sup> K or better   |
|-------------------------------|---|---|
| Facing brick                  |   |   |
| 50mm clear cavity             |   |   |
| Partial cavity fill           | Toplite GTI plus 35mm Kingspan TW50 or 35mm Celotex CW3035 plus 75mm Isowool Hi-Cav | Toplite GTI plus 45mm Kingspan TW50 or 45mm Celotex CW3045 plus 85mm Isowool Hi-Cav |
| Toplite GTI                   |   |   |
| 12.5mm plasterboard on dabs   |   |   |



| Full cavity fill blockwork  | 0.30 W/m <sup>2</sup> K or better    | 0.27 W/m <sup>2</sup> K or better    |
|-----------------------------|--------------------------------------|--------------------------------------|
| Facing brick                |                                      |                                      |
| Full cavity fill            |                                      |                                      |
| Toplite GTI                 | Toplite GTI plus 75mm Isowool Hi-Cav | Toplite GTI plus 85mm Isowool Hi-Cav |
| 12.5mm plasterboard on dabs |                                      |                                      |



| Solid Blockwork      | 0.30 W/m <sup>2</sup> K or better     | 0.27 W/m <sup>2</sup> K or better      |
|----------------------|---------------------------------------|--|
| 16mm Render          |                                       |  |
| 215 Toplite GTI      | Toplite GTI plus 55mm Thermaline Plus | Toplite GTI plus 50mm Thermaline Super |
| Insulated dry lining |                                       |  |

As a guide, the typical wall U-value for regulation compliance is envisaged to be in the range of 0.27 - 0.30W/m<sup>2</sup>K, but to be confirmed by SAP or other whole building energy calculation. For extensions to dwellings, a U value of 0.30 W/m<sup>2</sup>K is normally required for external walls.

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E-mail: [technical.services@tarmac.co.uk](mailto:technical.services@tarmac.co.uk)

The product brochures available include:

Durox - aircrete blocks

Durox System - thin joint blocks

Toplite - aircrete blocks

Hemelite & Topcrete - lightweight & dense aggregate blocks

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Quote reference L128

## Further Information:

Please call the Technical Centre on: 0870 242 1489.

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