NBS – co-ordinated project information in a digital world

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LDC SUPPORTS GROWTH OF RIBA’S COMMERCIAL ARM

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Assistant Digital Editor

Private equity house LDC has entered into a partnership with the Royal Institute of British Architects (RIBA) to support the growth of the organisation’s Newcastle-headquartered commercial arm.

RIBA Enterprises Ltd trades as NBS and provide technology, content and data services to professionals in the architecture, engineering and construction industries.

The business has a 200-strong team and turned over £20.5m in the year to December 2017.

LDC is investing £31.8m for a significant minority shareholding in NBS. It will support its development.
“To be the leading global provider of construction information and construction knowledge management services”
NBS Products & Services

NBS National BIM library
Geometry model uses objects from the BIM library
All data uses consistent structure and naming conventions

Geometry model
Geometry model linked and synched to the specification model

NBS BIM Toolkit
Toolkit defines project roles, responsibilities and data to be developed and exchanged

NBS Specification and guidance

Standards/Technical

Building code
All data linked to relevant standards and technical documents to allow for model analysis
Specification templates with associated guidance

**Masonry external leaf system**

**Products**

- **Products**
  - **45-50/65/430 Polyisocyanurate (PIR) foam board**
    - **Manufacturer:** Contractor's choice.
    - **Standard:** To BS EN 13165.
    - **Third party product certification:** British Board of Agrément (BBA) Certificate.
    - **Thermal conductivity (maximum):** 0.021 W/m.K.
    - **Cross section:** Tapered.

** Thickness (nominal):**

- **Face size (length x width):**
- **Reaction to fire:**
- **Density:**
- **Compressive strength at 10% deformation:**
- **Recycled content:**
- **Facing:**
- **Edges:**

**NBS Values**

- 20 mm
- 23 mm
- 40 mm
- 50 mm
- 60 mm
- 70 mm

**Face size (length x width):**

In cavity wall construction, inner and outer masonry leaves course at 225 mm intervals and insulation slabs at 450 mm. The use of thin joint concrete blockwork inner leaves means that inner and outer leaf bed course joints do not generally coincide. Ties are either face fixed or driven (helical type) into the inner leaf. Insulation slabs can either be supported with brick or with a metal cut off plate.

### Example:

- **NBS values**
  - 20 mm
  - 23 mm
  - 40 mm
  - 50 mm
  - 60 mm
  - 70 mm

**Execution**

- **25-10-55/600 Adverse weather conditions**
- **Air temperature:**
  - Cement gauged mortars:

**Contractor's Selection**

- **Contractor's choice.**
- **Submit proposals.”**

**Cross reference**

- **As clause:**
- **New clause:**

### Notes:

See also BRUFMA 'Building Regulations for the conservation of fuel and power. Impact Assessment: England and Wales edition’ (British Rigid Urethane Foam Manufacturers’ Association Ltd).
Masonry external leaf system

Products

- 45-45-65/430 Polyisocyanurate (PIR) foam board
  - Manufacturer: Contractor's choice
  - Standard: To BS EN 13165
  - Third party product certification: British Board of Agrément Certificate
  - Thermal conductivity (maximum): 0.021 W/m.K
  - Cross section: Tapered
  - Thickness (nominal): 65 mm
  - Face size (length x width): 430 x 650 mm

Reaction to fire

- To BS EN 13501-1, class F

Execution

- 25-10-55/600 Adverse weather
  - Freezing conditions: Do not use frozen materials or lay on frozen surfaces
  - Air temperature: 3°C and falling or below 1°C
  - Cement gauged mortars: Do not lay units at or below 3°C and falling or below 1°C

Reaction to fire

- BS 13501-1 included in default value. Clause item guidance included.

The Construction Products Regulation (CPR) and harmonized European standards (hENs) require that fire performance is assessed in accordance with European fire standards (BS EN 13501) rather than the national standards (BS 476).

See Table 4 for comparison between BS EN 13501-1 and national standards.

Table 4 - Approximate correlation between National classifications, Euroclasses for a category of reaction to fire

<table>
<thead>
<tr>
<th>British Standard</th>
<th>European classification (to BS EN 13501-1)</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noncombustible to BS 476-4 or BS 476-11</td>
<td>A1</td>
<td>Not used</td>
</tr>
<tr>
<td>Limited combustibility to BS 476-11</td>
<td>A2-s1, d2 or better</td>
<td>Low</td>
</tr>
<tr>
<td>Class 0 as defined in Building Regulations</td>
<td>B-s1, d2 or better</td>
<td>Low</td>
</tr>
<tr>
<td>Class 1 spread of flame to BS 476-7</td>
<td>C-s1, d2 or better</td>
<td>High</td>
</tr>
<tr>
<td>Class 2 or 3 spread of flame to BS 476-7</td>
<td>D-s3, d2 or better</td>
<td>Very high</td>
</tr>
<tr>
<td>Worse than class 2 or undclassified (no performance determined to BS 476-7)</td>
<td>E or F</td>
<td>Very high</td>
</tr>
</tbody>
</table>
BS EN 13501-1:2007
Fire classification of construction products and systems using data from reaction to fire tests (+ A1:2009)
British Standards Institution

Document Status
Current
Supplement
Core Supplement
Series
BS EN

Abstract
Provides the reaction to fire classification procedure for all construction products, products incorporated within building elements. Covers three categories:

Links to standards and regulations

Technical Resources
- NBS Building Regulations
- Architects' Journal
- Steel Construction Institute
Embed office knowledge
Develop the information through the project timeline
Specify the performance of a system
Specify products from manufacturers.
Not a traditional paper spec - but a well structured data model
Publish the information that you wish from the central specification database.
NBS National BIM Library
The only collection of high quality BIM objects certified to meet the NBS BIM Object Standard.

Contains the latest generic and manufacturer objects - all free to download.

Find BIM objects

Download plug-ins

What is NBS National BIM Library?

The fastest-growing building information modelling (BIM) library in the UK, with an extensive collection of both generic and manufacturer BIM objects ranging from building fabric systems to mechanical and electrical objects. All our objects meet the requirements of the internationally-recognised NBS BIM Object Standard.
International BIM object standard
External Single Door (181)

Location
- UK: 181
- Australia: 16
- Canada: 16

Category
- Top Ten
- All (11)

Can't find a BIM Object?

International generic objects

External Single Door with Louvre Panel
External Single Door, Blank Leaf
External Single Door, Fully Glazed Leaf
External Single Door, Vision Panel Style VP01
The Cu-Beam™ Suspended Up-Light provides an ultra-wide distribution of powerful illumination. Using a custom-engineered bubble optic lens, it casts a wide pool of light across the ceiling. This eliminates hot spots and allows a short drop height, creating soft ambient light throughout the room. It is ideal for lighting open spaces such as atriums, foyers and offices.
### NBS National BIM Library

#### Properties and values

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tr>
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<td>IfcLightFixtureType</td>
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<td>Control Gear (Class I), luminaire (SELV CLASS III), total</td>
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<tr>
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<td>80 Ra</td>
</tr>
</tbody>
</table>

**Property values for the local region**
Cloud based development
Case study – Glasgow Queen Street Station

bdp.com/en/projects/p-z/queen-street-station/
Welcome, Stephen Hamil

Signed in: stephenhamil@gmail.com

Create new project  Manage account  0

Show all projects (18)

View:  Sort:  Last edited

Search for a project...

Administrator Projects (10)
You've created the following projects and have full access to editing and all functionality:
Questions?