

### 1. PRODUCT NAME

Bautex Block, BB 616-10

### 2. MANUFACTURER

Bautex Systems, LLC  
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### 3. PRODUCT DESCRIPTION

The Bautex Block is a high-performance lightweight composite insulating concrete form made from expanded polystyrene (EPS) and a proprietary cementitious mix for use in commercial concrete wall construction.

The combination of insulation, air tightness and thermal mass allows the Bautex Block to deliver superior thermal efficiency and indoor air quality while also creating sound-deadening walls that enhance any work or living space. The EPS is fully integrated into the composite mix, making Bautex Block resistant to fire, pest infestation, mold and mildew.

The Bautex Block is 16" tall by 32" long (406mm x 813mm) and 10" (254mm) thick. The block is used to form a strong insulating wall with a grid of 6" circular reinforced concrete columns and beams every 16 inches.

#### Basic Uses

The strength, durability, insulating capacity, flame resistance, and flexibility of the Bautex Block can enhance the design, performance and energy efficiency of every structure in which it is used. The Bautex Block can be used to create:

- Structural exterior walls
- Interior demising walls
- Non-structural curtain walls
- Below grade walls
- Sound walls

#### Benefits

- Combines insulation + air tightness + thermal mass to produce high energy efficiency
- Provides lab-tested fire-resistant characteristics, exceeding most project requirements
- Couples composite material + mass of structural concrete to create sound deadening walls

- Delivers first costs in line with traditional construction methods (CMU, Steel Stud, Tilt Wall)
- Offers superior life-cycle value
- Dramatically increases flexibility of design

### 4. TECHNICAL DATA

This product is a solid composite block composed of proprietary mix of expanded polystyrene (EPS), portland cement, and coal fly ash. This product is non-combustible.

#### Specifications

Wall Width	10 inches
Block Height	16 inches
Block Length	32 inches
Core Size	6 inches
Grid Spacing (Vertical)	16 inches
Grid Spacing (Horizontal)	16 inches
Wall surface per block	3.55 square feet 0.33 square meters
Block Weight	45 pounds 20.4 kg
Blocks Per Pallet	12 blocks
Weight Per Pallet	640 pounds 290.3 kg

#### Composition and Materials

- Engineered foam plastic EPS
- Recycled cementitious coal fly ash
- Regionally sourced portland cement
- Blocks are 50% recycled material by weight
- Block materials do not promote mold or mildew growth
- EPS will not rot or deteriorate
- 0% VOC content

### 5. INSTALLATION PROCEDURES AND INSTRUCTIONS

Installation of the Bautex Block is simple and straightforward, utilizing existing construction techniques, skills, and tools. Bautex Systems offers and encourages installers to participate in construction training courses. Before buying and using this product, completely read the Bautex Wall System Design and Engineering Guide, Bautex Wall System Installation Guide, this technical data sheet and the product Material Safety Data Sheet (MSDS), which are available from authorized distributors or at bautexsystems.com.

#### A. Place the Blocks

Blocks are laid end-to-end starting from one corner until a full course is completed. Blocks are glued together to provide temporary alignment until the cores are filled with concrete. Wall penetrations and design details are easily formed as the courses are placed.

#### B. Install Steel Reinforcement

Horizontal and vertical reinforcement bars are placed within each block core using commonly available rebar chairs and tie wire. Reinforcing bar schedules and specifications are the responsibility of the project's professional engineer.

#### C. Brace and Pour Concrete

Once the walls are braced and inspected, the hollow cores formed by the blocks are poured with high-flow structural concrete. A typical concrete mix uses 3/8" aggregate and an 8" slump; however, a professional engineer will specify the exact mix design for each project.

#### D. Apply Barriers and Finishes

Attachments, air and moisture barriers and finishes are applied on interior and exterior wall surfaces using traditional construction methods and materials.

#### Precautions

Avoid contact with liquid fuels and organic solvents (e.g. acetone, toluene).

#### Precautions

Bautex Blocks contain expanded polystyrene, portland cement, and coal fly ash. Dust from cutting or rasping may cause mild eye and skin irritation. When cutting or rasping, wear a NIOSH approved respirator mask, safety glasses, and gloves. General ventilation is adequate for normal use. Use proper lifting techniques and always stack and store blocks in a stable manner to avoid falling hazards. Bautex Blocks are non-toxic, environmentally friendly and inert.

#### First Aid

If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention if ill effects or irritation occurs; for skin, wash thoroughly with soap and water. If swallowed, do not induce vomiting, and consult a physician. For further safety controls, Material Safety Data

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Sheets are available from Bautex Systems LLC and can be found at [bautexsystems.com](http://bautexsystems.com). This information should be read before using this product.

### 6. AVAILABILITY

Bautex Block is available through Bautex Systems and through Bautex Systems distributors in some markets. Contact Bautex Systems for your local authorized distributor. For more details visit [bautexsystems.com](http://bautexsystems.com).

### 7. CONDITIONS OF SALE, LIMITED WARRANTY

Inasmuch as the use of Bautex Systems' product by others and other factors affecting product performance are beyond Bautex Systems' control, Bautex Systems does not guarantee the results to be obtained. Bautex

Systems provides a 5-year limited product warranty for qualifying projects. A sample Warranty Certificate and Terms and Conditions of Sale are available upon request.

### 8. TECHNICAL SERVICES

Bautex Systems offers assistance with specifications, performance test data and field support.

### BAUTEX SYSTEMS DISCLAIMER

Every effort has been made to ensure the accuracy of the above information and to avoid infringement of any patent or copyright. The information is based on field tests by government and private agencies, as well as lab tests, and on technical data from raw material manufacturers. The person(s) specifying or requesting the use of these products is

responsible for assuring their suitability for a specific use, as well as the proper application of the products. See also CONDITIONS OF SALE, LIMITED WARRANTY (Section 7) above.

FOR INDUSTRIAL USE ONLY

Applicable Standards	Requirements	Performance
<b>ASTM E84</b> - Standard Test Method for Surface Burning Characteristics of Building Materials	Flame Spread: <25 Smoke Development: <450	Flame Spread: 0 Smoke Development: 20
<b>ASTM E119</b> - Standard Test Methods for Fire Tests of Building Construction and Materials (Unfinished Bautex Wall under load)	Declared Value	Fire resistnace rating of 4 hours
<b>NFPA 286</b> - Standard Methods Of Fire Tests For Evaluating Contribution Of Wall And Ceiling Interior Finish To Room Fire Growth (Unfinished Bautex Wall)		Meets NFPA 101 Life Safety Code®
<b>NFPA 286</b> - Standard Methods Of Fire Tests For Evaluating Contribution Of Wall And Ceiling Interior Finish To Room Fire Growth (Finished with 5/8" gypsum drywall)		Meets NFPA 101 Life Safety Code®
<b>ASTM C518</b> - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus	Declared Value	R-value per inch: 1.84
<b>ASTM G21</b> - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi	Score: 0 to 4	Score: 0, No Growth Detected on Surface of Sample
<b>ASTM E90</b> - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements (Finished Bautex Wall)	Declared Value	STC: 51 OITC: 47
<b>ICC 500</b> - ICC/NSSA Standard for the Design and Construction of Storm Shelters	Protocol 1 & 2	Unfinished: 200 mph Finished: 225 mph
<b>FEMA 320</b> - Taking Shelter From the Storm: Building a Safe Room For Your Home or Small Business	Protocol 3	Unfinished: 160 mph Finished: 225 mph
<b>FEMA 361</b> - Design and Construction Guidance for Community Safe Rooms	Protocol 3	Unfinished: 160 mph Finished: 225 mph

\* Full test reports available at [bautexsystems.com](http://bautexsystems.com)