## LEADER IN AERATED CONCRETE BUILDING SOLUTIONS





Hebel offers building systems based on autoclaved cellular concrete, a technology that allows delivering efficient, ecological and sustainable solutions from the manufacturing to the application, promoting high energy efficiency in all types of buildings with the highest quality, the highest fire resistance classification, in addition to having a high performance as an acoustic insulator; Due to its lightness and cleanliness, it considerably reduces construction times, generating direct savings for labor.

Due to their qualities of protection of the environment and natural resources, our products have achieved the highest standards and certification standards. Being Hebel one of the brands of Grupo Xella, Leader in Autoclaved Cellular Concrete worldwide, you have access to the Research and Development Center in Germany, which operates its own technology and processes. In this center they develop and create new building applications monitoring all the steps of the production process in order to guarantee the best quality and solution for our clients, in addition to ensuring the highest performance.

A hebe

Autoclaved Aerated Concrete technology was invented in 1924 and patented by J.A. Eriksson Hebel, brand and last name of the founder, Civil Engineer Joseph Hebel, opened the first autoclave aerated concrete factory in 1943 with production of prefabricated panels to be installed in industrial walls and ceilings. The objective: expedite and have a work completed in the shortest possible time, with unique advantages in the same material of high thermal insulation against cold and heat, fire resistance and greater durability, to be able to rebuild the destroyed cities after the 2nd War World. Hebel has been present in the Americas since 1994, being the construction system with the highest German quality, technology and innovation in the industry.

Its properties take any project to a higher category, managing to build a better quality of life, comfort and savings for a lifetime. Hebel Mexico offers a comprehensive experience with a specialized 360 service and assigned to each project according to your requirement.

The Hebel Plant in Mexico is located in Pesquería, Nuevo León, and has a capacity to offer more than 500,000 m<sup>2</sup> of slab and 1,000,000 m<sup>2</sup> of wall per year for the markets of Mexico, United States and Latin America.

#### Aerated Concrete Hebel<sup>®</sup>: Unique properties in a single material.

#### **Benefits**

#### Thermal Insulation

Buildings constructed of HEBEL AAC provide substantial energy savings in both hot and cold climates. The unique closed cellular structure and the thermal mass contribute to a high R-value and air-tightness which reduce heating and cooling costs and improve indoor air quality. Buildings have seen savings on air conditioning up to 35% by using HEBEL AAC.

#### Structural Performance

Resists wind pressures. High impact resistance.

#### Fire Resistant

We are certified by Underwriters Laboratories (UL) with the maximum fire-rating classification. Our systems withstand fire exposure up to 4 hours, maintaining their structural integrity and **DO NOT emit toxic fumes** even under intense heat.

#### Acoustic Insulation

Provides exceptional acoustic insulation. Its porous structure and high surface mass, coupled with its ability to dampen mechanical vibration energy, greatly reduces sound transmission from exterior - interior and room-to-room.

#### **Physical Properties**

The physical properties of HEBEL Autoclaved Aerated Concrete are unique to any other building material. Properties such as thermal insulation and fire resistance cannot be met by another product alone.

This product meets Standards and Evaluation issued by: ACI

530-13

ACI

523.4-R09

Speed of Construction

- Thermal Insulation & Energy Savings
- Superior Fire Resistance

#### Resistance to humidity

Protects against moisture. It allows the passage of water vapor, reducing condensation.

#### Green Building

- Recyclable, inert & non-toxic
- Energy saving
- Durable
- LEED credits



#### Easy treatment

Can be easily cut, drilled and grooved with manual or power tools.



#### Lightweight

Its lightweight nature allows a faster and more efficient construction.



#### Not a food source for termites or vermin and no cavity construction. Eliminates the chance of harbouring pests.

Sustainable

Relatively high strength for a low density

- Workabilitv
- Acoustic Performance

ASTM

C 1693-11

ASTM

C 1660-09

Precision



## SAVE ENERGY COSTS

## SAVE UP TO 35%, REDUCING YOUR BILLS FOR LIFE.

COOL NAMER NAMER

## INDEX

Hebel® Projects	04
Building Solutions for every Project	06
AAC Properties	08

#### **Building Solutions**

Hebel® Masonry Components	10
Hebel <sup>®</sup> Power Panel	12
Hebel <sup>®</sup> Power Floor <sup>™</sup>	14
Hebel <sup>®</sup> Vertical Load-Bearing Wall Panels	16
Hebel <sup>®</sup> Wall Panel	18
Hebel <sup>®</sup> Slab Panel	20
Hebel <sup>®</sup> Fence Panels	22

## NATIONAL PROJECTS

Hotel Holiday Inn Hotel Embassy Suite Dallas, Texas McAllen, Texas TRACK. Allen University St. Jude Children's Research Hospital Residential 109-Columbia, South Carolina Memphis, Tennesse McAllen, Texas PLOUINTA LOUISTO

Ames Lake Studio, Seattle, Washington Residential in Roma Texas Hotel La Quinta Inn & Suites Ducanville, Texas

Knew rold like

## **INTERNATIONAL PROJECTS**



Mercedes-Benz Arena, Shanghai, China

### BUILDING SOLUTIONS FOR EVERY PROJECT There is only one Hebel®



#### Residential

A home built with Hebel<sup>®</sup> is a living place that protects and provides comfort to all family members, bringing great energy savings for life.



#### Hotels and Hospitals

Any multifunctional design challenge is possible with Hebel<sup>®</sup>, as example Hotels that comply very specific requirements.





#### Residential

Building with Hebel<sup>®</sup>, means high technology materials that besides providing security they promote saving daily resources once they are built.  $\bigtriangledown$ 



#### Multilevel Buildings

Hebel<sup>®</sup> Autoclaved Aerated Concrete is ideal for multilevel buildings. Building process is faster than conventional materials.

#### Industrial

Due to its strength, it can resist wind pressures without reinforcement, which makes it perfect for industrial buildings. It provides a high impact resistance.



#### HEBEL® IS PERFECTION

The decision of using Hebel<sup>®</sup> does not depends on a particular argument, as it combines so many advantages in just one product. Each of our clients finds the perfect building solution within our different construction systems for every specific project.

## AAC PROPERTIES (Autoclaved Aerated Concrete)

Characteristic	Unit	AAC-3	AAC-4	AAC-6
Compressive Strength (f' aac)	psi	435	580	870
Nominal Density	pcf	25	31	37
Design Weight	pcf	30	37	45
Drying Shrinkage	%	<0.02	<0.02	<0.02
Thermal Expansion Coefficient	1°/F	4.4x10⁻⁵	4.4x10⁻⁴	4.4x10 <sup>-6</sup>
Thermal Conductivity	BTU-in/ft² h °F	0.91	0.91	0.98
Modulus of Elasticity	psi	248890	295781	377246
Modulus of Rupture (MOR)	psi	100	116	142
Bearing Stress	psi	261	348	522

AAC material is produced in accordance with ASTM-C-1693-11

## STRONG WALLS

#### THE BEST FIRE RESISTANCE

GREAT THERMAL PERFORMANCE

ENERGY, INSURANCE AND MAINTENANCE SAVINGS FOR LIFE



- Lightweight
- Acoustic
- No Mold Mildew
- Fast construction
- Wind resistance

## Hebel<sup>®</sup> Masonry Components

**Autoclaved Aerated Concrete** 

#### Dimensions:

Length 24 in Heigth 8 (7-7/8)in Thickness 4 in to 12 in

**Application:** Commercial Residential Industrial

#### **Uses and applications**

Hebel Masonry Components are used to build reinforced load-bearing and nonload-bearing exterior and interior walls for fire and shaft walls in Residential, commercial and industrial buildings.

Hebel AAC meets the diverse demands better than any other material due to the numerous advantages of its physical, mechanical and energy efficiency properties.

#### **Construction Advantages**

- Solid walls.
- 🗹 Energy savings 35%.
- Eliminates thermal bridges.
- Faster construction.
- High structural performance.

#### More benefits of Hebel<sup>®</sup> Masonry Compoments

- Savings in construction time and workforce.
- Fire resistance.
- Acoustic performance.
- Humidity resistance.
- Minimum waste.
- Friendly to the environment.
- Sustainable.



1222

More information about this product please enter the following link:

64

HI I

INCA

III

## Hebel<sup>®</sup> Power Panel

**Autoclaved Aerated Concrete** 

#### Dimensions:

Application:

#### Uses and applications

Hebel<sup>®</sup> Power Panel can be applied directly to wood or metal studs, eliminating the need for additional structural sheathing such as plywood. The Hebel Power Panels are reinforced internally with a steel mesh protected with anticorrosive coating. In addition, the lightweight nature of Hebel AAC allows a faster and more efficient construction.

#### **Construction Advantages**

- Steel Reinforced.
- Structural Performance. 🗹 Fast and easy to install.
- Fire Resistant.
- Light-weight.
- Long life.
- Efficient construction.

- ✓ Cost competitive.
- Water penetration resistant
- Termite and Pest-resistant.
- Workability.
- Environmentally friendly.

#### More benefits of Hebel<sup>®</sup> Power Panel

- Solid cellular concrete material, without deterioration of its properties over time.
- Monolithic surface: smooth walls with the stonework.
- Greater thermal and acoustic insulation.
- Resistant to climate changes: rain, heat and
- As versatile as cutting, sanding, grooving.



## Hebel<sup>®</sup> Power Floor<sup>™</sup>

**Autoclaved Aerated Concrete** 

#### Dimensions:

Thickness 3 in Length 6ft, 6ft-8in, and 8ft Width 24 in

Application: Hospitality Assisted Living Multifamily

#### Uses and applications

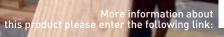
Hebel<sup>®</sup> PowerFloor<sup>™</sup> is a lightweight autoclaved aerated concrete (Hebel AAC) panel that can be fixed to timber or steel joists. It provides the feel of a rigid concrete floor but with the advantage of providing an instant working surface, along with acoustic and thermal benefits.

#### **Construction Advantages**

- No topping required.
- Rapid installation.
- Fire resistant.
- Superior Acoustic insulation.
- 🗹 Accuracy of manufactured panels.
- No pre-drilling.
- Excellent load carrying capacity.
- Smooth finish surface.
- Lightweight panels.
- Non Toxic.
- 🗹 Pest and rot resistant.

#### More Benefits of Hebel<sup>®</sup> Power Floor <sup>™</sup>

- Fire resistance.
- Strength and security.
- Acoustic performance.
- Thermal performance.
- Not Mildew.
- Low maintenance.
- Grants LEED points.
- Solid concrete floor.





## Hebel<sup>®</sup> Vertical Load-Bering Wall Panels

#### Dimensions:

Length Up to 19.67 Thickness 6,7,8,10 and 12 in Width 24 in

#### Application:

Commercia Residential Industrial

#### **Uses and applications**

Hebel AAC Hebel<sup>®</sup> Vertical Load Bearing exterior and interior walls for residential, hotels, commercial and industrial buildings.

The thickness and panel length (height) vary depending on the design requirements and constraints of the project.

#### **Construction Advantages**

- 4 Hour Fire Rating
- Moisture Resistant
- 🗹 Mold Resistant
- Lightweight
- 🗹 Pest and Rot Resistance
- 🖌 Non-Toxic

This product is friendly to the environment, ecological, non-toxic and sustainable; And also grants LEED points.



A L'

More information about this product please enter the following link:



## Hebel<sup>®</sup> Wall Panel

Autoclaved Aerated Concrete

#### Uses and applications

#### Dimensions:

Length Up to 19.67 ft Width 24 in Nominal Thickness 4,5,6,7,8,10 and 12 in

#### Application:

Commercial Industrial Hospitality Assisted Living Dorms Fire walls The Hebel wall panel system uses its excellent thermal, fire resistance, and lightness features to be one of the best options as curtain wall solution in industrial and commercial projects. The process is simpler and quicker than conventional methods.

#### **Construction Advantages**

- Superior Fire rating.
- Speed of Construction.
- Durability (Low maintenance)
- Lightweight (37pcf)
- Lightweight equipment needed to install.
- 🗹 5 people crew to install.
- Custom made.
- Workability.

#### More benefits of Hebel<sup>®</sup> Wall Panel

- Fire resistance.
- Strength and security.
- Wind load capacity.
- Acoustic performance.
- Thermal performance.
- Pest and rot resistant.
- Not Mildew.
- Low maintenance.
- Friendly to the environment and Sustainable.
- Grants LEED points.





More information about ease enter the following link:

this produ



## Hebel<sup>®</sup> Slab Panel

**Autoclaved Aerated Concrete** 

#### Dimensions:

Length Up to 19.67 ft Width 24 in Thickness 4, 5, 6, 7, 8, 9, 10, 11 and 12 in.

#### Application:

Commercia Residential Industrial

#### Uses and applications

Hebel Slab Panel are steel reinforced units used to build roof or floor slabs that work simply supported over masonry walls (either Hebel or CMU), and also by steel, concrete or wood structures. Their design is based on span-load requirements.

#### **Construction Advantages**

- Lightweight (37pcf).
- No propping required.
- No concrete topping required.
- Custom made.
- Excellent Load carrying capacity.
- Covers up to 19ft-8" span.
- Lightweight equipment needed to install.
- ✓ 5 people crew to install.
- Speed of construction.

#### More benefits of Hebel<sup>®</sup> Slab Panel

- Fire resistance.
- Acoustic performance.
- Thermal performance.
- Pest and rot resistant.
- Not Mildew.
- Low maintenance.
- Friendly to the environment and Sustainable.
- Grants LEED points.



More information about this product please enter the following link:

## Hebel<sup>®</sup> Fence Panels

**Autoclaved Aerated Concrete** 

#### Dimensions:

Length: 8ft Width: 24 in Nominal Thickness: 2 and 3 in

#### **Application:** Commercial Residential

#### Uses and applications

Hebel fence can be used for fence construction on landscaping, providing privacy, protection and style. Decorative and creative ideas can be adapted to Hebel Fence such as ornamental moldings, openings, posts, etc.

#### **Construction Advantages**

- Fast and easy to install.
- Lightweight.
- 🗹 Fire Resistant.
- Strength and security.
- Versatile and affordable.
- Acoustic barrier.
- Low maintenance (Durability).

This product is friendly to the environment, ecological, non-toxic and sustainable; And also grants LEED points.



**360° Service:** We provide support from the developmnt of your project until its conclusion the development of your project, offering the best building solution based on your needs. We are your best ally for construction projects.

✓ Specification
✓ Estimating
✓ Value Engineering
✓ Technical and Engineering support
✓ Training and product consultant
✓ Logistics
✓ Customer Service

# There is only one

## <u>/ hebel</u>

CONCRETO CELULAR AUTOCLAVEADO AUTOCLAVED AERATED CONCRETE (AAC

CANADA LA CONTRACTOR DE LA CONTRACTOR DE



QUOTE AND BUILD YOUR PROJECTS WITH US 1-877-41-HEBEL Phone (210) 402-3223 hebel-usa@hebel-usa.com

#### Contact us

833 Isom Rd. San Antonio, TX 78216

Phone (210) 402-3223 Fax (210) 402-6390

1-877-41-HEBEL hebel-usa@hebel-usa.com

www.hebel-usa.com



