



**We Design, Produce
and Build Green Buildings**



Sound Insulation



Fast Construction



Energy Saving



Lightweight



Fire Resistant



Easy Installed



Versatile



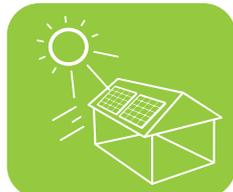
Durable



Accurate



Recyclable



Thermal Insulation

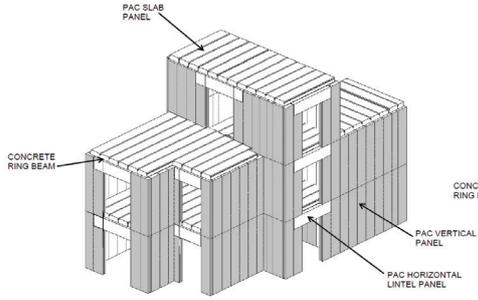


Breathable

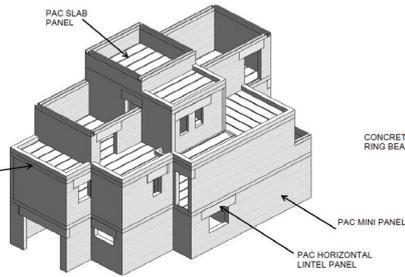


PAC Systems

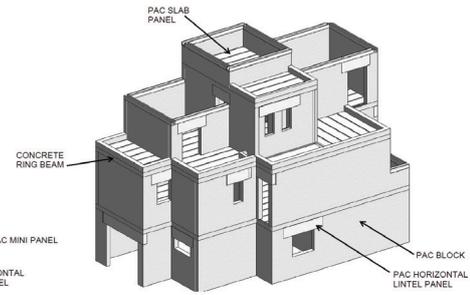
Panel System



Mini Panel System



Block System

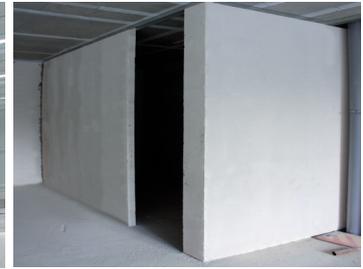


PAC Applications



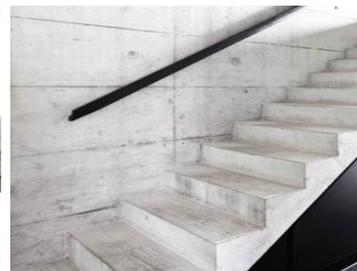
Hourdi

Partition Walls



Cladding on Steel Structure

Boundary Walls & Parapets



Staircases

Shaft Walls



What Is AAC

Who We Are

ESPAC is one of the leading and certified companies in the Kingdom of Saudi Arabia, and GCC countries, specialized in design, production and assembly of Precast Aerated Concrete "PAC" in accordance to the best quality standards. We manufacture a fully integrated building system of highly efficient and environmentally reconcilable building material, which is Autoclaved Aerated Concrete "AAC". Making the building process safer, faster and more accurate, No matter what the project is: Storage, Housing, Industrial, educational, or logistic buildings, ESPAC is the best solution available in the market today. More than a manufacturer, with a capacity of more than 360,000 m³ per year, with our experienced engineering and production teams who possess the necessary skills to meet our client's finest requirements. We provide assistance for all concerns, starting from design to completion, in order to ensure timely, quality and smooth delivery for every job.

Autoclaved aerated Concrete "AAC" was first produced commercially in Sweden in 1923, as an alternative material that can provide both the structural and thermal resistance characteristics required. PAC is produced as reinforced panels and blocks which are constructed as a homogeneous system, in addition to masonry units to be constructed in RC skeleton construction. AAC is actually one of the most sustainable building materials, outstanding thermal efficiency and universality of application are the main reasons for the success story of PAC throughout the 20th and 21st century. PAC has secured its place in the future of sustainable construction, outperforming alternative building materials in natural insulation, fire resistance and eco-friendliness. Designers, architects, builders and producers of PAC constantly invest in further research and development.

Properties

Properties	Unit	Range
Dry Density	Kg/m ³	400 - 800
Compressive Strength	N/mm ²	2.5 - 7.5
Modulus of Elasticity	N/mm ²	1250 - 3250
Thermal Conductivity	N/mm ²	0.1082 - 0.1731

Raw Material



Aluminum Powder



Sand



Water



Lime



Cement

PAC Benefits



Energy Saving

ESPAC's Products' thermal insulation properties can significantly reduce heating and cooling costs. Due to its high R-Value with a 10-fold improvement over traditional concrete, Up to 60% of electrical energy consumption governed by the need for space cooling can be dispensed.



Accuracy

The exact dimensions of ESPAC's products result in smooth walls with a perfect contact among the different elements, enabling builders to save in finishes and achieve high optimal structural performance. Dimension tolerances are +/-3mm in blocks and in panel length.



Fire Resistance

The perfect solution for fire safety, ESPAC's Product is noncombustible, fire resistant up to 1200° C, and offers up to 6 hours of protection against fires, providing the highest security against fire, and meet the most stringent fire safety requirements.



Fast Construction

The Lightweight nature and excellent workability of ESPAC's product makes it extremely quick to install on-site. considering a villa of 350 /m you will need only an experinced team of four and a single crane operator to instal the villa in 15 days!



Sustainability

Structures made with ESPAC's AAC are durable, and will not degrade under normal atmospheric conditions. ESPAC's product is often recognized among the most environmentally sustainable building materials available in the market. We combine less materials and energy usage in manufacturing, with a range of environmental benefits.



Workability

ESPAC's product can be sawn, drilled, and nailed using normal wood working tools, which allow accurate cutting, minimize the generation of solid waste during use, and increase on-site productivity and creativity.



Noise Insulation

ESPAC's AAC porous structure, and superior sound absorption qualities offer sound attenuation of about 48 dB, blocking out all the major sounds and disturbances. It is ideal for schools, hospitals, hotels, offices, multi-family housing and other structures that require acoustic insulation.



Non Toxic

ESPAC's product does not contain any toxic gas substances, in addition it does not attract rodents or other pests, nor can it be damaged by such.

ESPAC Products

Image	Product Code	Description	3mm for thickness & width, + - 5mm for length			Application
			Thicknes	Width	Length	
	VP	PAC vertical wall panels	100, 150, 200, 250, 300	Up to 600 mm	Up to 6000 mm	<ul style="list-style-type: none"> - Load bearing - Non-load bearing - Partition wall - Cladding wall - Parapet wall - Boundary wall - Filling wall
	HP	PAC horizontal wall panels	100, 150, 200, 250, 300	Up to 600 mm	Up to 6000 mm	<ul style="list-style-type: none"> - Load bearing - Non-load bearing - Partition wall - Cladding wall - Parapet wall - Boundary wall - Filling wall
	FS	PAC floor slabs panels	150, 200, 250, 300	Up to 600 mm	Up to 6000 mm	Floor Slabs with design load up to 600 kg/m ²
	RS	PAC roof slabs panels	100, 150, 200, 250, 300	Up to 600 mm	Up to 6000 mm	Roof slabs with design load up to 250 kg/m ²
	LP	PAC wall lintels panels	100, 150, 200, 250, 300	600	Up to 6000 mm depends on design	Load-bearing lintels over window or door opening walls
	LX	PAC box lintels panels	100, 150, 200, 250	200, 250, 300	Up to 3600 mm	Load-bearing ox lintels over window or door opening for walls.
	S - Blocks	Standard PAC blocks	50, 100, 150, 200, 250, 300	200, 250	600 mm	<ul style="list-style-type: none"> - Load bearing wall - Non Load bearing - Light weight partitions - Solid blocks - External & internal walls - Instead of C.M.U or red clay blocks.
	MP	Mini Panel	100, 150, 200, 250, 300	600	Up to 1500 mm	<ul style="list-style-type: none"> - Load bearing wall - Non Load bearing - Light weight partitions - Solid blocks - External & internal walls - Instead of C.M.U or red clay blocks.
	H - Blocks	Hordi PAC blocks	200, 250, 300	250	600 mm	<ul style="list-style-type: none"> - Hordi blocks infill between concrete. - Ribbed slabs.
	PT	PAC roof tiles		50x250x600 75x250x600 75x600x600		Insulate conventional roof.