

COMPANY PROFILE



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COMPANY PROFILE

COMPANY PROFILE

Alrayan Building Insulation Company manufactures Gulf Walls /Oryx Block System for industry. ICF is a novel building system concept introduced by GWALLS.

We are proud to present this contemporary technology. ICF is a revolutionary building material with several advantages over conventional concrete forming products.

Our insulating Concrete Forms are versatile building materials that serve as stay-in-place concrete forms and built-in Insulation. They offer a Fast, Easy, Green, Cost-Effective, and Durable building solution, making them a superior choice for construction projects.

Introduction:

Al Rayyan Building insulation company for the industry

Al Rayyan Building Insulation is a company formally established in the Kingdom of Saudi Arabia to manufacture GWALLS/ORYX block products. The vision is to provide world-class load-bearing systems to the GCC and African Markets.

Factory

Al Rayyan Building Insulation is an industrial company in the 1st Industrial City, Al Ahsa, Saudi Arabia. It has the latest machinery and experienced technical staff to manufacture the GWALLS/ORYX Block.

Production Capacity of the Factory to EPS & ICF BLOCKS

Expanded Polystyrene sheet – 500 Cubic meters daily

ICF BLOCKS – 500 Blocks per day





PLANT & MACHINERY

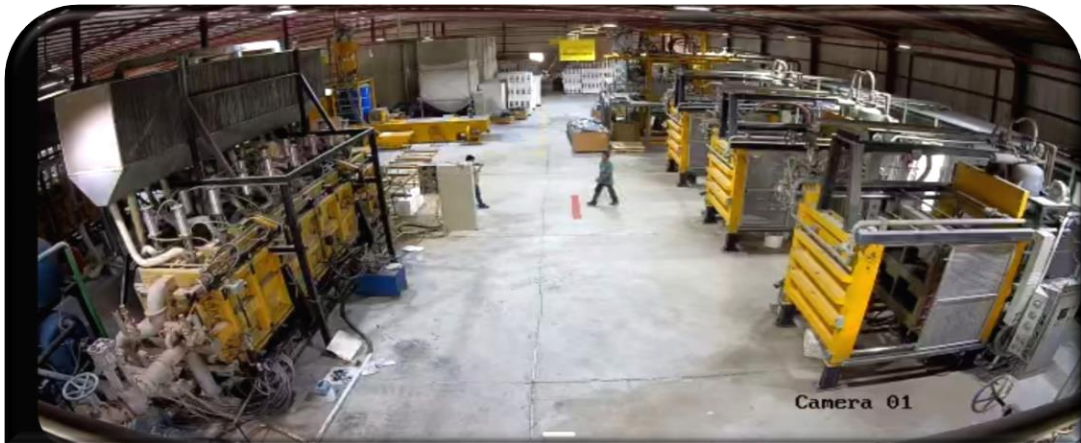
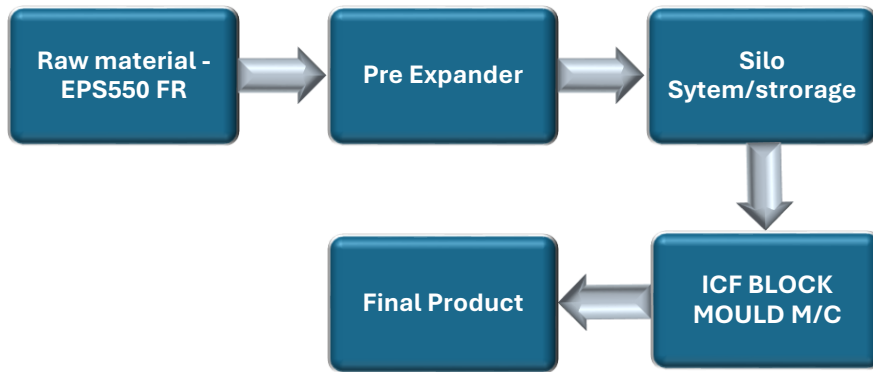
PLANT & MACHINERY

Located in the Al Ahsa Industrial Zone, Kingdom of Saudi Arabia, Alrayyan Building Insulation Factory is equipped with state-of-the-art technology and advanced machinery to manufacture GWALLS Insulated Concrete Foam Panels.

We ensure the highest quality standards by selecting premium raw materials through a rigorous filtration process. Our raw materials are sourced exclusively from SABIC, a trusted and Saudi government-approved supplier, and are tested by internationally accredited laboratories to guarantee superior performance.

At Alrayyan Building Insulation Factory, we adhere to ISO-certified manufacturing standards, ensuring compliance with industry regulations and delivering high-quality GWALLS products in Saudi Arabia.







PRODUCT DETAILS

PRODUCT DETAILS

Gwalls – Insulated concrete foam block

INSULATED CONCRETE FORMS (ICF) are forms or moulds with built-in insulation for accepting reinforced concrete. The initial patent application for an ICF was registered in the late 1960s. Since then, and particularly in the last decade, ICF construction has gained huge popularity in mainstream construction as the preferred contemporary building product worldwide. These large, hollow blocks are stacked right off of the truck and filled with reinforcing bar and concrete. The result leaves you with a high-performing wall that is structurally sound, insulated, strapped, has a vapour barrier and is ready to accept final exterior and interior finishes.

During the past decade, insulating concrete form (ICF) construction has accounted for an ever-increasing share of the overall construction market. Architects and designers worldwide have found that ICFs easily and economically meet their design and technical challenges while providing value-added structures to their customers.

GWALLS -IFORM

iForm is acknowledged as the most technologically advanced ICF in the industry because of its innovative design and technical features that set it apart from other ICFs. iForm has become the ICF of choice for commercial projects ranging from small strip malls to multi-story condominiums, hotels and theaters, schools, churches, assisted living and nursing homes, and a wide range of residential projects.

iForm is designed to function as the formwork for a cast-in-place concrete wall. The formwork stays in place as insulation on the exterior and interior face of the wall assembly, and also serves as attachment for exterior and interior finish systems. It forms a solid flat steel-reinforced cast-in-place concrete wall of 10 cm, 16 cm, 20 cm, 25 cm, or 30cm thicknesses that is the structural component of the wall assembly.

iForm is used in commercial and residential construction for exterior and interior, load-bearing and non-load bearing, and above-grade and below-grade walls. Specific applications include frost walls, basement walls, storm shelters, demising walls, slab-on-grade walls, non-load-bearing walls on post-tension floor slabs, and single-story to multi-story walls. iForm is a modular and easy-to-assemble form that is stacked together in a running bond, creating a concrete cavity of various thicknesses. It has two faces or panels of EPS material 6.6 cm thick that are held together by plastic ties spaced on the center at specified widths and in uniform distance.

iForm Types

All iForms made of Gwalls are available as modular products. The type and size of the product are determined by structural requirements, fire and sound rating requirements, and designer or owner preference.

iForms are available in different types to make the construction process more efficient. The 90-degree and 45-degree corner forms eliminate the need for exceptional miter and bracing corners. The ledge form is available to create a ledge to support a brick or stone or intermediate floor system. Taper top forms are available to provide additional concrete bearing for specific applications such as supporting precast hollow core plank floors or demising walls. A T-form makes the construction of two intersecting walls very efficient.

PRODUCT



STRAIGHT

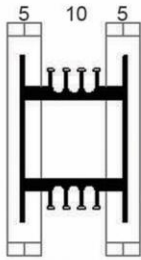
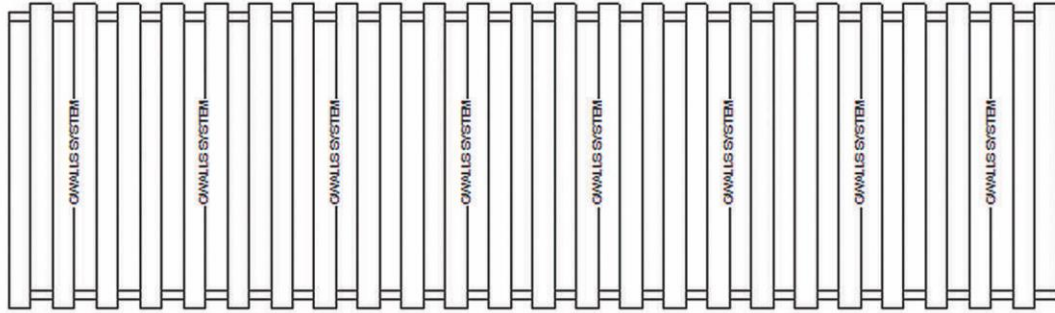
90° CORNER

45° CORNER

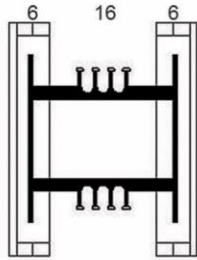
T - FORM

LEDGE

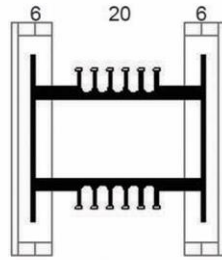
TAPER TOP



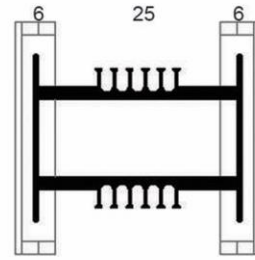
20 cm



28 cm

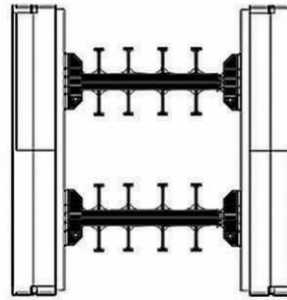
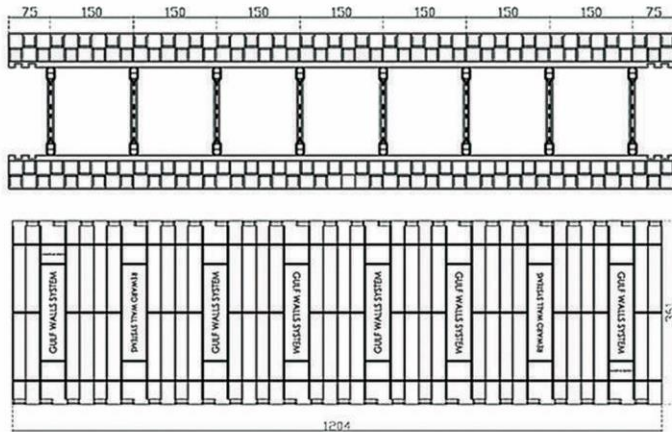


32 cm



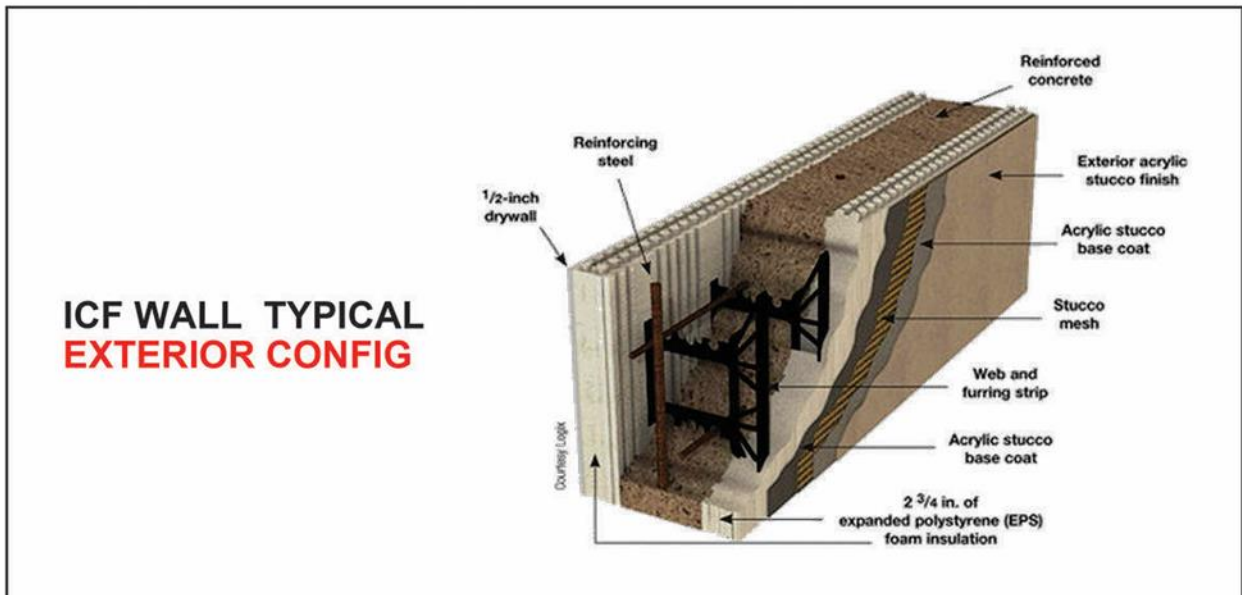
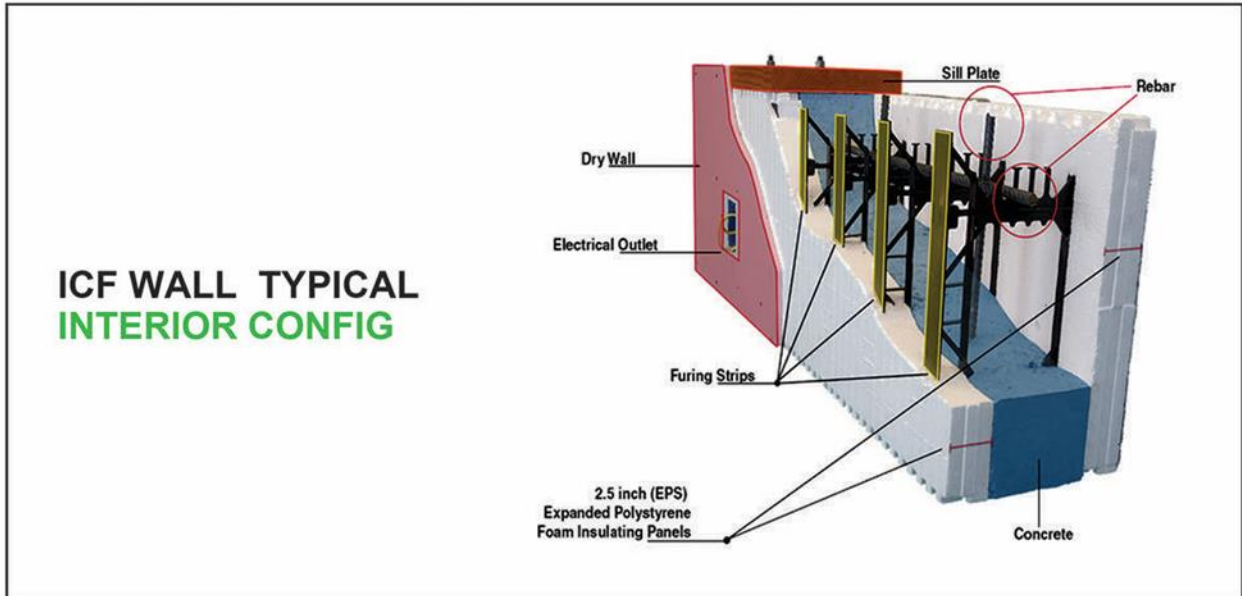
37 cm

ICF S IN DIFFERENT CONCRETE WIDTHS



CONSTRUCTION

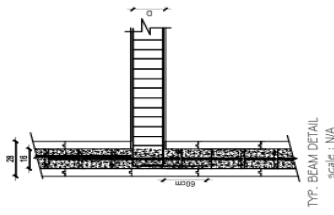
IT IS ALL ABOUT CONCRETE BUILDING



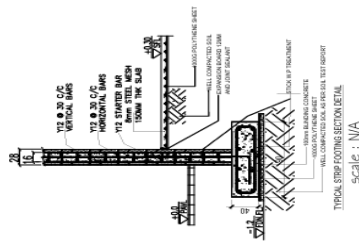


ALRAYAN BUILDING INSULATION FOR INDUSTRY CO.
1ST INDUSTRIAL AREA ALHASA
STREET NO 34 AL OYUN CITY
31085 SAUDI ARABIA
TEL : +966566359184

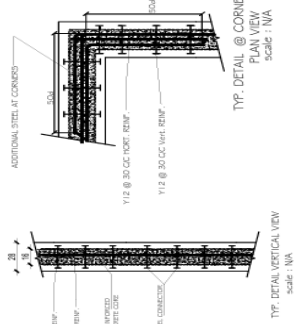
DOWN BEAM CONNECTION DETAILS



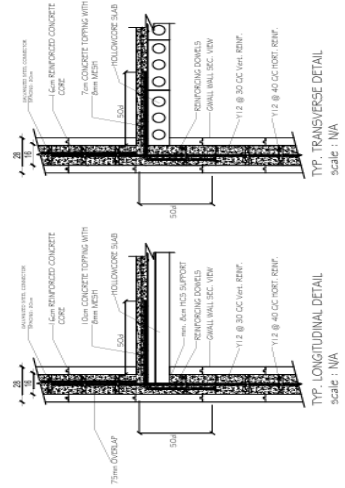
FOUNDATION DETAILS



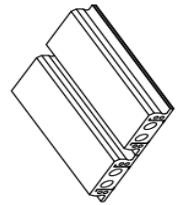
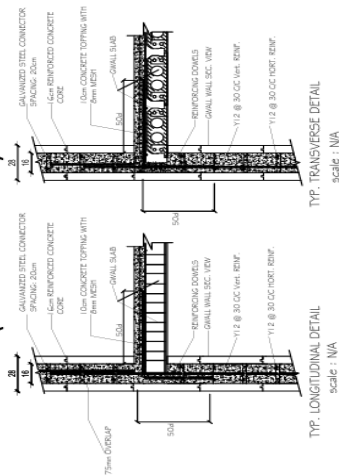
WALL SECTION DETAILS



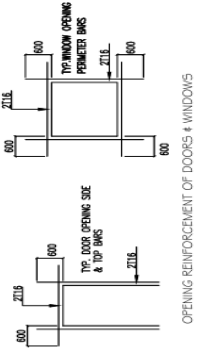
**WALL TO SLAB CONNECTION DETAILS
(HOLLOCORE SLAB)**



**WALL TO SLAB CONNECTION DETAILS
(GWALLS SLAB)**



LINTEL STEEL DETAILS





DATASHEET & COC



شهادة مطابقة للمنتجات الخاضعة للوائح
Certificate of Conformity for regulated products



We [L. Tabseer Commercial Business Pioneers Est ...] Office Number [L. 07978 ...] are bearing full responsibility for the product described below is conforms to the conformity assessment procedure Conduct the relevant technical regulations and standards which mentioned during this certificate.

Certificate Number	62532-079-24-1566744	Issue Date	24/09/2024	Expire Date	24/09/2025
Certificate Type	Product Conformity Certificate (COC)	Commercial Registration No.	1010879192 / 7034370135		
Establishment Address					
Product and Manufacturer Data					
Modal Name	INSULATED CCONCRETE FORMS INSULATING PANELS (ICF)	Trademark	GWALLS - ORYX BLOCK		
Product Name	INSULATED CCONCRETE FORMS INSULATING PANELS (ICF)				
Product Description					
Country of origin	Saudi Arabia				
HS Code	392030000000				
Technical Regulation	Technical Regulation for Building Materials - Part 2: Insulation and Cladding Materials				
Manufacturer Name	Alrayyan Building Insulation for Industry Co				
Product Test Data					
Report Number					
Report date					
Decision Of Conformity Assessment	Product Approved				
CB Organization Office Responsible manager signature				CB Organization Office Responsible manager Stamp 	
	24/09/2024 14:27				

Certificate Number	62532-079-24-1566744	HS Code	392030000000
Product Name	INSULATED CCONCRETE FORMS INSULATING PANELS (ICF)	Model Name	INSULATED CCONCRETE FORMS INSULATING PANELS (ICF)

Barcode and Serial numbers supplement

Barcode : 9992024

Expanded polystyrene (EPS) foam is a closed-cell insulation manufactured by “expanding” a polystyrene polymer; it typically resembles a white plastic insulation material.

GWALLS® the material comprises expandable beads of polystyrene pre-foamed and fused in a steam-heated mould under pressure. This produces a block of material, which is then cut to and/or shape. After cutting to size, the material may be faced or laminated with other materials to suit its application. In the construction industry, GWALLS® EPS Panels is among the most versatile, energy efficient, and cost effective insulators available, delivering extremely high, stable R-values. Gwalls’ EPS insulation panel is a lightweight cellular plastic material suitable for various insulation applications. GWALLS® is versatile, light in weight, clean and easy to handle, it provides a cost-effective means of permanent insulation in floors, walls and roofs to meet, and exceed, the standards laid down in the Building Regulations.

PRODUCT COMPOSITION

GWALLS® insulation panels are manufactured of EPS material, which comprises expandable beads of polystyrene pre-foamed and fused together in a steam-heated mould under the required pressure. This produces a block of EPS Insulation material in 6 M x 1.2MX 1M size with different densities, which is then cut to the required size and shape.

RAW MATERIAL

Gwalls’ primary concern is Health and Safety. We source our Raw Material from reputed manufacturers, giving primary importance to quality and reliability. GWALLS® panels are made of Flame-Retardant EPS beads, which meet or exceed relevant building codes/standards.

TYPES OF GWALLS®

Insulation panels of Gwalls are majorly available in two different types which are Light & Heavy depends on application of the Products.

GWALLS-L

GWALLS® L are EPS insulation panels are light version for LowDensity applications ranging Density 12 – 24 Kg/M³.

GWALLS IX (Density Range : 10 Series)

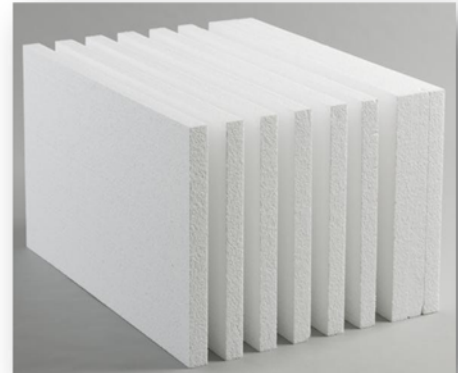
GWALLS IIX (Density Range : 20 Series)

GWALLS-H

GWALLS®H are EPS insulation panels are Heavy version for HighDensity applications ranging Density 25 – 40 Kg/M³.

GWALLS IIIX (Density Range : 20 Series)

GWALLS IVX (Density : 30 Series)



VERSATILE APPLICATIONS

Where energy efficiency and cost-effectiveness are primary design considerations, architects, constructors, and homeowners have made EPS the dominant thermal insulation. R-value of EPS is up to 5/in does not deteriorate over time. Applications include: Building construction (roof, wall, and foundation), Cavity wall and drywall base insulation, Exterior and interior foundation wall insulation, Roof applications (tapered panel and Holey-Board), Refrigeration Building and transportation applications, Perfect for walk-in coolers, tanks, vessels, Refrigerated rail and truck, Facility construction: pharmaceutical, petrochemical, liquid natural gas and other facilities

SIZE & SHAPE

Produced EPS Block is to be cut to size, thickness and in required Shape in accordance with applications and requirement.

Length : 0.5 - 6M

Width : Till - 1.2 M

Thickness : Till - 1.2 M

DIMENSIONAL STABILITY

EPS Panels of Gwalls are In accordance with BS EN 13163 DS(N)5 ± 0.5% under regular laboratory conditions

DIMENSIONAL TOLERANCES

Dimensions of GWALLS® panels are subject to tolerance in accordance with BS EN 13163. Tolerances on the cut dimensions of EPS panels are defined as follows:

- (A) Length: $\pm 3\text{mm}$ or $\pm 0.6\%$ whichever is greater
- (B) Width: $\pm 3\text{mm}$ or $\pm 0.6\%$ whichever is greater
- (C) Thickness: $\pm 2\text{mm}$
- (D) Squareness: $\pm 5\text{mm}$ per 1000mm

DENSITY

GWALLS® EPS Insulation panels are available in the density range of 15-40 kg/m³. Gwalls EPS panels are available as two major types GWALLS – L® & GWALLS-H®, depends on the density.

PRODUCT STANDARD

Where relevant, GWALLS® products are manufactured to in accordance to meet the requirements of industrial Standard BS EN 13163 'Thermal insulation products for buildings – Factory made products of expanded polystyrene (EPS) - specification'. Alternatively, Gwalls produces EPS insulation following ASTM Standard as well. ASTM C578: Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.

THERMAL PERFORMANCE

EPS Insulation Panels having high thermal performance comparing other insulations. Thermal Resistance, Thermal Conductance and Coefficient of Linear Expansion of EPS insulation materials are:

Thermal Resistance (R- Value)

The R-value of EPS remains constant and does not suffer from R-value loss. The closed cell structure of EPS contains air and not blowing agents therefore R- value is more stable and it may not which deplete over time. R- Value of EPS Sheet having 1Inch Thickness is Approx: **R - 4.5** or **0.80 K·m²/W**

Thermal conductivity (K-value)

Specifies the rate of heat transfer in any homogeneous material K-value of a number of common materials and demonstrates that EPS has a low thermal conductivity compared with several other Building Materials. Typical Thermal Conductivity (K-Value) of EPS is 0.032 (w/mk)

Coefficient of linear expansion

GWALLS® Panels are subject to a Linear Expansion: 0.6 x10-6/°C. The material is sufficiently resilient and flexible that no allowance need to be made for thermal expansion in the method of installation.

EXPOSURE TO WATER AND WATER VAPOR

The mechanical properties of EPS are unaffected by moisture. Exposure to water or water vapor does not cause swelling however; a suitable damp-proof membrane or vapour control layer will be required in most forms of construction

FIRE PERFORMANCE

GWALLS® EPS insulation panels are made of Flame Retardant EPS material. GWALLS® panels does not burn itself however it will melt when it is subject to High Temperature Flash ignition temperature of normal EPS is about 490°C depending on the application and the exact circumstances of use. Decomposition may start at about 302°F (150°C).

Flame retardants used in the manufacturing of EPS provide an important margin of safety, all EPS products must be used in accordance with local Building Codes. Working Temperature Range of EPS is -150°C to +80°C. GWALLS® EPS is unaffected by the normal range of climatic temperature. GWALLS® panels are made of Flame Retardant EPS material having good resistance to flame it is a self extinguishing product. As per DIN 4102 GWALLS® EPS insulation panels are classified as Class: B1 Difficult to Ignite / Self Extinguishing. In accordance with ASTM E 84 Flame Spread and Smoke Developed are < 25 and < 450 respectively.

WEATHERING

Long-term exposure to sunlight causes yellowing and a slight embrittlement of the surface due to ultraviolet radiation this has little effect on mechanical properties. If stored out-doors, cover EPS with opaque polyethylene film, tarps, or similar material.

BIOLOGICAL PROPERTIES

Gwalls EPS will not decompose and will not support mold or mildew growth as it provides no nutrient value to plants, insects, vermin or microorganisms therefore; GWALLS® Panels provides high Indoor Air Quality.

COMPATIBILITY WITH OTHER MATERIALS

EPS is soluble in aromatic, halogenated solvents, aliphatic hydrocarbons and their emulsions and ketones, esters, ethers therefore it should be protected from contact with hydrocarbons and strong solvents using a suitable membrane. EPS is unaffected by contact with solvent-free bitumen providing that, where necessary, the precautions set out above regarding temperature are observed. EPS should not be permitted to come into contact with PVC- sheathed electrical cables since this will lead to migration of plasticizer from the PVC resulting in embrittlement of the cable sheath. Cables should be protected by the use of a physical barrier, for example by being enclosed in a conduit or by safe air gap between EPS and PVC Sheathed Cables.

Property	Unit / Standard	GWALLS- L®					GWALLS- H®				
		GWALLS-L IX		GWALLS-L : IIX			GWALLS-H : IIIX		GWALLS-H : IVX		
Nominal Density	(kg/m ³)	15	18	20	22	24	28	32	35	38	40
Thermal Resistance per 1.0 in. thickness (R-Value) 24 +/- 1 ° C	(°K.m ² /W)	0.69	0.71	0.72	0.73	0.74	0.76	0.78	0.80	0.81	0.81
Thermal Conductivity (K-Value) 24 +/- 1 ° C	(W/KM)	0.038	0.038	0.036	0.036	0.035	0.034	0.034	0.033	0.032	0.032
Compressive Strength @ 10% deformation, min.	(kPa)	69	80	90	95	104	170	200	250	280	310
Flexural Strength min.	(kPa)	173	208	220	245	260	330	345	380	414	460
Water Vapor Permeance of 1.0 in. thickness	Max Perm/in	5	4.5	3.5	3.5	3	3	2.5	2.5	2.5	2.5
Water Absorption by total immersion	% by Vol Max	4	4	3	3	3	2	2	2	2	2
Dimensional Stability	Max %	2	2	2	2	2	2	2	2	2	2
Oxygen Index	min., volume %	24	24	24	24	24	24	24	24	24	24
Specific heat capacity	(kJ/kg.K)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Fire Property / Classification	DIN 4102	Class : B1 Difficult to Ignite / Self Extinguishing									
Flame Spread	ASTM E84	Class - A < 25									
Smoke Developed		Class - A < 450									

Note : Above values are average and are derived at our own facilities and/ or products, it is true and correct to the best of our knowledge and belief (above values are variable subject to ambient conditions from material to material and location to location)

HEALTH , SAFETY & ENVIRONMENT

GWALLS® Insulation panels are non-toxic and not-irritating to the eyes or skin. No medical treatment or action is required as a result of accidental ingestion. No special precautions are required during handling or cutting when carried out in well ventilated areas. GWALLS® panels are of 98% air the manufacturing process of EPS utilizes steam, it has no gases such as CFC, HCFC, HFC or HFA. Flame-retardant EPS contains additive material, around 0.5% of the flame- retardant (HBCD) which is entrapped in the polymer matrix of the EPS. EPS is fully recyclable and we at Gwalls operate an environmental program recycling all in-house manufacturing waste generated by GWALLS® production.

HANDLING AND STORAGE

GWALLS® EPS is easy to handle and install, being lightweight and easily cut to size. Gwalls' Insulation Board is supplied in polythene packs and should be stored off the ground. Avoid prolonged storage in direct sunlight as it may cause brittleness to the Panels. Life span of EPS insulation material is though out the life of the building providing that, it is properly installed as instructed in the applicable building codes.

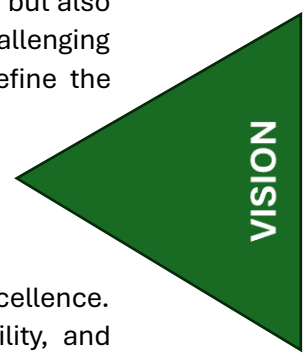


QUALITY POLICY



OUR VISION: SHAPING THE FUTURE THROUGH INNOVATION

At GWALLS®, we envision a future where architectural materials are not just functional but also transformative. Our mission is to think beyond conventional boundaries, constantly challenging norms to create pioneering, sustainable, and high-performance solutions that redefine the construction industry.



A Commitment to Innovation and Uniqueness

We believe that true progress comes from innovation and the relentless pursuit of excellence. Every product we develop is designed with a vision to enhance efficiency, durability, and environmental responsibility. Our team of forward-thinkers and problem-solvers continuously pushes the limits of creativity to introduce cutting-edge materials and technologies that set new industry benchmarks.

Sustainability as a Core Value

The world is evolving, and so are the demands for eco-friendly and energy-efficient building solutions. As part of our vision, we are dedicated to sustainable development, ensuring that our materials contribute to a greener future. By incorporating the principles of Reduce, Reuse, and Recycle, we create solutions that align with global sustainability goals while maintaining the highest standards of performance.

Customer-Centric Approach

Our vision is rooted in understanding and addressing the needs of our customers. We strive to provide not just products but complete solutions that offer unmatched reliability, quality, and efficiency. By fostering strong relationships with our partners and clients, we continue to build a legacy of trust and excellence.

Setting New Industry Standards

As a leader in the architectural and construction material industry, we take pride in pioneering innovative and high-performance products. Our goal is to drive transformation in the sector by introducing advanced building materials, improving construction methodologies, and enhancing the overall experience for developers, architects, and builders.



OUR COMMITMENT TO EXCELLENCE

Since our inception, we have upheld our **core values** in every aspect of our operations, ensuring the success and well-being of our **customers, investors, employees, nation, and partners**.

Reliability

At **GWALLS®**, trust is the foundation of our success. We uphold **integrity** and foster **confidence** in our products, quality, and services, ensuring that we remain a **dependable partner** in your journey.

Innovation

We are driven by a **passion for innovation**. Our dedicated team continuously pursues **research, development, and advancements**, turning creative ideas into **tangible solutions** that exceed expectations.

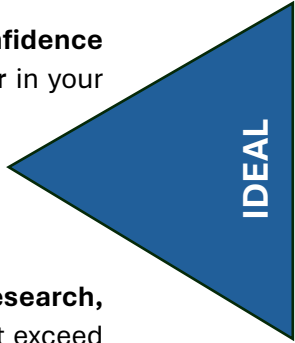
Sustainability

We are committed to **environmental responsibility** and sustainable living. Our adherence to **ISO 14001 certification** reflects our dedication to **reducing waste, recycling, and reusing materials**. Our **ICF Panels** are fully recyclable, reinforcing our commitment to a **greener future**.

Health & Safety

We prioritize **workplace safety, employee well-being, and industry best practices** to create a secure and healthy environment. Our proactive approach reduces risks and promotes a **culture of safety** at every level of our operations.

WE MAKE THE DIFFERENCE.





QUALITY, HEALTH, SAFETY & ENVIRONMENT (QHSE) POLICY

At Alrayyan Building Insulation Company for Industry, we are committed to achieving the highest standards in Quality, Health, Safety, and Environmental (QHSE) management. Through a culture of continuous improvement, innovation, and total employee participation, we strive to exceed customer expectations and build long-term business relationships based on trust, reliability, and superior service delivery.

Our Commitments:

✓ Sustainable & Responsible Operations

We prioritize pollution prevention and actively work to minimize health and environmental risks through the efficient use of resources and the continuous improvement of our processes.

✓ Operational Excellence & Cost Efficiency

We execute each project with cost-effectiveness and timely delivery by optimizing resource utilization and adopting the latest management practices to enhance efficiency and performance.

✓ Strong Stakeholder Relationships

We foster strong partnerships with all interested parties, ensuring we understand and comply with their needs, expectations, and regulatory requirements.

✓ Compliance with International Standards

We are committed to the effective implementation of an Integrated Management System in line with ISO 9001, ISO 14001, and ISO 45001 standards. Performance is continually reviewed through clearly defined departmental objectives.

✓ Workplace Safety & Employee Well-being

We take a proactive approach to preventing workplace injuries and illnesses by continuously monitoring and improving our Occupational Health & Safety (OH&S) performance.

✓ Environmental Responsibility

We are dedicated to identifying and mitigating environmental impacts, conserving natural resources, and promoting sustainable practices throughout our operations.

✓ Regulatory Compliance & Ethical Standards

We ensure full compliance with all applicable legislative, statutory, and regulatory requirements, upholding the highest ethical and professional standards in our industry.

This QHSE Policy is communicated to all employees and individuals working on behalf of the organization. It is also made publicly available to stakeholders and other interested parties upon request.

At Alrayyan Building Insulation Company for Industry, we are dedicated to excellence in Quality, Safety, and Sustainability—because we believe in building a better, safer, and greener future.





TEST CERTIFICATE

GWALLS Certification

GWALLS products are tested and certified for product integrity and Safety by international accredited labs.

GWALLS CERTIFICATION:

Certification – attached Intertek

1. Materia Test report:

1. Fire test report will be as per the ASTM-84 standards
2. Density ASTM C303-21
3. Dimensions ASTM C303-21
4. Thermal resistance ASTM C518-21,
5. Compressive resistance ASTM C 165-23 procedure A,
6. Flexural strength ASTM C203-22 Method 1, Procedure B
7. Water Vapor permeance ASTM E96/E96M-23,
8. Water Absorption ASTM C272/272M-18,
9. Dimensional stability ASTM D2126-20
10. Oxygen index as per ASTM D 2863-19
11. FR TEST- ASTM E-84
12. STC TEST-E 90

2. ISO CERTIFICATE

1. ISO 9001.
2. ISO 14001
3. ISO 45001
4. SABER- COC

TEST REPORT



Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch
Plant 5, No. 6958 Daye Road, Fengxian District, Shanghai, China
Tel: +86 21-61136116 Fax: 021-61189921
Website: www.intertek.com

Test Report

Original Issue Date: 2024-04-23 Revised Date: 2024-09-09 Intertek Report No. 240315010SHF-001-R2
Applicant: Tabseer Company
Address: 3571 Imam Saud Bin Abdul-Aziz Bin Mohammed Rd, 8514 King Fahd Dist. 12274 RIYADH, KSA
Attn: Nada El-Khateeb
Manufacturer: ALRAYYAN BUILDING INSULATION FOR INDUSTRY COMPANY
Address: Saudi Arabia, eastern area, Alahssa city, Alahssa industrial city, road 34
Test Type: Performance test, samples provided by the applicant.

Product Information

Product Name	Model	Specification
Insulated Concrete Form	ICF Insulation Panels	/
Sample ID	Sample Amount	Sample Received Date
S240315010SHF.003, 005, 007~013	1 package	2024-02-19, 2024-07-24
Sample Description		Brand
White foam panel		GWALLS - ORYX BLOCK

Test Methods And Standards

Test Standard	ASTM C303-21, ASTM C518-21, ASTM C165-23 Procedure A, ASTM C203-22 Method I Procedure B, ASTM E96/E96M-23 Procedure A, ASTM C272/C272M-18, ASTM D126-20, ASTM D2863-19
Specification Standard	ASTM C578-23
Test Conclusion	The samples were tested according to the above standards, and the results are shown in the following page.

Note:

1. This report does not involve sampling. The report only reflects conformity of the tested items of the samples provided by the testing applicant. Representativeness and authenticity of the submitted samples are responsibilities of the testing applicant.

Report Authorized

Daniel Zhang
Name: Daniel Zhang Title: Reviewer

Erin Huang
Name: Erin Huang Title: Project Engineer



Test Report

Original Issue Date: 2024-04-23 Revised Date: 2024-09-09 Intertek Report No. 240315010SHF-001-R2

Test Items, Method and Results:

ASTM C578-23 Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation

Test items	Test Methods	Test Results	Test Requirements	Verdict
Density	ASTM C303-21	26.4 kg/m ³	Min.: 22 kg/m ³	Pass
Dimensions	ASTM C303-21	Length: 1193.64 mm Width: 398.16 mm Thickness: 60.45 mm	Length: ±2.5 mm/m Width: ±5.0 mm/m Thickness: ±59.5 mm/m	Pass
Thermal resistance	ASTM C518-21	Mean temperature: 24°C 0.876 (m ² ·K)/W	Mean temperature: 24°C ≥ 0.70 (m ² ·K)/W	Pass
Compressive resistance at 10% deformation	ASTM C165-23 Procedure A	186 kPa	Min.: 104 kPa	Pass
Flexural strength	ASTM C203-22 Method I, Procedure B	271 kPa	Min.: 240 kPa	Pass
Water Vapor Permeance	ASTM E96/E96M-23 Procedure A, Desiccant Method at 23°C, 50%RH	146.2 ng/Pa·s·m ²	Max.: 201 ng/Pa·s·m ²	Pass
Water absorption by total immersion	ASTM C272/C272M-18	0.04% by volume	Max.: 3.0 %	Pass
Dimensional Stability (change in dimensions)	ASTM D2126-20	7 days at 70°C, 97%RH Side length 1: 0.26% Side length 2: 0.28% Thickness: 0.27%	Max.: 2.0 %	Pass
		7 days at -40°C, ambient humidity Side length 1: 0.05% Side length 2: 0.05% Thickness: 0.21%	Max.: 2.0 %	Pass
Oxygen index ⁴	ASTM D2863-19	24.17%	Min.: 24.0 %	Pass

Note:

- The test requirements were cited from ASTM C578-23. The product type II in the standard specification was specified by the applicant.
- Nominal dimension: 1195mm×400mm×60mm
- The test results of oxygen index relate only to the behaviour of the test specimens under the conditions of this test and that these results shall not be used to infer the fire hazards of the materials in other forms or under other fire conditions.





RAW MATERAIL MTD

SABIC® EPS 550FF

EXPANDABLE POLYSTYRENE FIRE RETARDANT

DESCRIPTION

Fire retardant expanded Polystyrene SABIC® EPS550FF is manufactured by the suspension polymerization of styrene monomer. The polymerization is generally carried out in a batch process and it contains a fire retarding additive in the formulation. SABIC® EPS550FF is an expandable polystyrene grade supplied in free-flowing beads containing pentane (CFC free) as a foaming agent.

TYPICAL APPLICATIONS

SABIC® EPS550FF grade is used for shape molding with wall thickness greater than 10 mm and for block molding with medium-to-high density for thermal insulation in construction industry. SABIC® EPS550FF has retarded ignitability and the moldings made from it will conform to the requirement of DIN 53438 class K1 and K2.

TYPICAL PROPERTY VALUES

Revision 20210812

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
TYPICAL DATA			
Bead Distribution	0.6 – 1.1	mm	SABIC 020
Minimum Density ⁽¹⁾	16	kg/m ³	SABIC 027
Normal Density Range	16 – 30	kg/m ³	SABIC 027

(1) One pre-expansion, lower density can be achieved by multiple pre-expansions

PROCESSING CONDITIONS

SABIC® EPS550FF is processed in three steps: Pre-expansion, Maturation and Molding SABIC® EPS550FF is heated by steam at 100°C in a pre-expander. The foaming agent present in the polystyrene beads vaporizes and mixes with steam. The gas mixture so produced subsequently softens the beads and expands them to 30-40 times to its initial size. In maturation process the foaming agent and steam condense in the cells of the pre-foamed beads causing partial vacuum, which is compensated by the diffusion of air into the beads. The maturation period could be between 3 and 24 hours. In the molding process the matured pre-foamed beads can further be processed by direct steam to the desired shape molding.

DISCLAIMER

SABIC® EPS550FF is not intended for food contact application. Detailed information is provided in relevant Material Safety Datasheet and for additional specific information please contact SABIC local representative for certificate.

STORAGE AND HANDLING

SABIC® EPS550FF is supplied in 1 MT semi bulk cardboard containers (octabins).

SABIC® EPS550FF contains flammable foaming agent, pentane, which can form explosive mixture with air. Hence, expandable polystyrene should be stored in closed containers below 25°C. Storage and processing areas should be adequately ventilated. Source of ignition like smoking, sparks, welding and naked flame should be strictly avoided. Should fire occur, the processor should use dry powder or carbon dioxide extinguishers, particularly in the area of hot wire cutting machines.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

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CHEMISTRY THAT MATTERS™



COMPANY DOCUMENTS

Company Registration

الرقم الموحد : ٧٠٣٤٣٧٠١٣٥
رقم المنشأة : ١٠١٠٨٧٩١٩٢
التاريخ : ١٤٤٤/١٠/١٨ هـ

شهادة تسجيل الشركة Company Registration Certificate



الاسم التجاري للشركة : شركة الريان لعزل المباني للصناعة
نوعها : ذات مسؤولية محدودة
جنسيتها : سعودي
تبدأ من : ١٤٤٤/١٠/١٨ هـ وتنتهي في :
مدة الشركة : ٢٩٦٨ ، طريق الامام سعود بن عبدالعزيز بن محمد ، ٦١١١
مركزها الرئيسي :
هاتف : ١٢٤٦٥ الرمز البريدي :
النشاط : للاطلاع على بيانات الأنشطة الرجاء مسح الرمز التجاري
رأس المال : ٥٠,٠٠٠ ريال سعودي
المديرون : 1 نايف علي ال ثاني
2 حمد سعد بن حمد الغريب
3
4
5
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13
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15
سلطات المدير/المديرون : حسب ما نص عليه عقد الشركة
يشهد مكتب السجل التجاري بمدينة : العيون بأنه تم تسجيل الشركة المذكورة أعلاه بمدينة : العيون
وتنتهي صلاحية الشهادات في : ١٤٤٦/١٠/١٨ هـ بموجب الإيصال رقم : ٢٤٠٨٣٣٠٠٤٠٢٤ وتاريخ : ١٤٤٦/٠٢/١٠ هـ



To Verify The Information Of This Certificate Visit <http://qr.mc.gov.sa> بملئكم التحقق من صحة هذه الشهادة بالدخول على
www.mc.gov.sa MCgovSA @ f t y Kingdom of Saudi Arabia | الرياض 11162 | +966 11 294 4444



TIN ٣١١٦٤٨٩٤٧ الرقم المميز
Certificate No. ١٠٢٢٣٠٠٠٤٧٧٩٩٢٦ رقم الشهادة
Certificate date ١٤٤٤/١٠/١٨ هـ تاريخ الشهادة



هيئة الزكاة والضريبة والجمارك
Zakat, Tax and Customs Authority

المملكة العربية السعودية
Kingdom of Saudi Arabia

شهادة تسجيل

Registration Certificate

The Zakat, Tax and Customs

تشهد هيئة الزكاة والضريبة

Authority certifies that the Taxpayer

والجمارك أن المكلّف /

شركة الريان لعزل المباني للصناعة

Entity Unified No./ID No

٧٠٣٤٣٧٠١٣٥

الرقم الموحد للمنشأة / رقم هوية

Commercial Registration/License/
Contract No

١٠١٠٨٧٩١٩٢

سجل تجاري / رخصة / عقد رقم

Is registered on 18/10/1444 AH corresponding to 08/05/2023 AD

مسجل لديها بتاريخ ١٤٤٤/١٠/١٨ هـ الموافق ٢٠٢٣/٠٥/٠٨ م

The eighteenth of Shawwal one thousand four hundred forty-four)
(Hijri

(الثامن عشر من شوال ألف و أربعمائة و أربعة و أربعون هجري)

Was granted this certificate to complete all transactions except for the
.final contract amounts due to him

وقد منح هذه الشهادة لإنهاء جميع معاملاته ما عدا صرف مستحقاته
النهائية عن العقود.

يمكن التحقق من صلاحية الشهادة عبر موقع الهيئة www.zatca.gov.sa

The validity of the certificate can be verified via the Authority's Website www.zatca.gov.sa

zatca.gov.sa 19993 @zatca_sa



هذه الوثيقة مستخرجة من النظام الآلي ولا تحتاج إلى توقيع
و لا يعتد بهذه الشهادة إلا بعد التحقق من موقع الهيئة
www.zatca.gov.sa



ترخيص منشأة صناعية



استثمار وطني

رمز المنشأة ١٠٠١٤٠٣٨ تاريخ الترخيص ١٤٤٥-٠٧-٠٤ رقم القرار ٤٠١١٠١٣٣٥٨٨ تاريخ القرار ١٤٤٥-٠٧-٠٤ نوع القرار جديد تاريخ الانتهاء ١٤٤٦-٠٧-١٦

اسم المنشأة الصناعية شركة الريان لعزل المباني للصناعة
السجل التجاري للمنشأة الصناعية ١٠١٠٨٧٩١٩٢
مالك المنشأة شركة الريان لعزل المباني للصناعة
رقم السجل التجاري الرئيسي ١٠١٠٨٧٩١٩٢
النشاط الرئيسي صنع المنتجات اللدائنية / ٢٢٢٠

عدد العمالة ٥
حجم الاستثمار ٥٨٣٩٩٠٧٠٠٠
خمس مائة ألف و تسعمائة و سبعة ريال
خمس مائة و ثمانمائة و تسعة و ثلاثون ألفا و تسعمائة و سبعة ريال

هاتف +٩٦٦٥٥٨٨٠٠٦٢
الرقم الوطني الموحد ٧٠٣٤٣٧٠١٣٥
موقع المنشأة الصناعية (N25.625566092333266 ,E49.5463228225708)
المنطقة الشرقية
المدينة العيون

رمز المنتج	وصف المنتج	النشاط الصناعي	الطاقة الانتاجية	الوحدة
٣٩٢١١١٠٠	قوالب بوليسترين	٢٢٢٠١٠ / صناعة منتجات نصف مصنعة من اللدائن . يشمل (ألواح , شرائح , صفائح , أشربة , مواسير وخرطوم ولوازمها ... الخ)	٢٠٠٠	طن
٣٩١٨٩٠٠٠	هوردي للسقف من البولي ستايرين	٢٢٢٠٣٥ / صناعة أعطية الأرضيات	٣٨٠٠٠	متر مكعب
٣٩٢٥٩٠٠٠	قوالب للخرسانة من البوليستايرين	٢٢٢٠٣٩ / صناعة لوازم البناء المصنوعة من اللدائن الأخرى	٣٥٠٠٠	متر مربع

وزير الصناعة والتجارة المعدنية

بندر بن إبراهيم الخريف





ISO CERTIFICATE

Certificate of Registration



This is to certify that the Quality Management System of

AL-RAYYAN BUILDING INSULATION FOR INDUSTRY CO.

Al Hassa First Industrial City, Al Ayoun, Kingdom of Saudi Arabia

is in accordance with the requirements of the following standard

ISO 9001:2015
(Quality Management System)

SCOPE

Supply of Polystyrene and Insulated Concrete Foam (ICF)

(IAF Code: 29)

Certificate Number : 240824019621

To verify certificate, visit at :

www.arscert.com
www.uafaccreditation.org
www.iafcertsearch.org

Initial Registration Date : 24-Aug-2024

1st Surveillance Date : 24-Jul-2025

2nd Surveillance Date : 24-Jul-2026

Certificate Expiry Date : 23-Aug-2027

Issued by ARS Assessment Private Limited


Managing Director



CB-MS-3923



UAF Address : 400, North Center Dr, STE 202, Norfolk, VA 23502, United States of America

This certificate remains the property of ARS and must be returned to ARS on Cancellation or Suspension of the certificate. Validity of the certificate is subject to successful completion of surveillance audits. Further clarification regarding the scope of this certificate and the applicability of standard may be obtained by consulting the Organisation on info@arscert.com

Certificate of Registration



This is to certify that the Environmental Management System of

AL-RAYYAN BUILDING INSULATION FOR INDUSTRY CO.

Al Hassa First Industrial City, Al Ayoun, Kingdom of Saudi Arabia

is in accordance with the requirements of the following standard

ISO 14001:2015
(Environmental Management System)

SCOPE

Supply of Polystyrene and Insulated Concrete Foam (ICF)

(IAF Code: 29)

Certificate Number : 240824029622

To verify certificate, visit at :

www.arscert.com
www.uafaccreditation.org
www.iafcertsearch.org

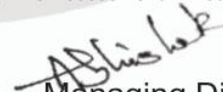
Initial Registration Date : 24-Aug-2024

1st Surveillance Date : 24-Jul-2025

2nd Surveillance Date : 24-Jul-2026

Certificate Expiry Date : 23-Aug-2027

Issued by ARS Assessment Private Limited


Managing Director



CB-MS-3926



UAF Address : 400, North Center Dr, STE 202, Norfolk, VA 23502, United States of America

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Certificate of Registration



This is to certify that the Occupational Health and Safety Management System of
AL-RAYYAN BUILDING INSULATION FOR INDUSTRY CO.

Al Hassa First Industrial City, Al Ayoun, Kingdom of Saudi Arabia

is in accordance with the requirements of the following standard

ISO 45001:2018

(Occupational Health and Safety Management System)

SCOPE

Supply of Polystyrene and Insulated Concrete Foam (ICF)

(IAF Code: 29)

Certificate Number : 240824039623

Initial Registration Date : 24-Aug-2024

1st Surveillance Date : 24-Jul-2025

2nd Surveillance Date : 24-Jul-2026

Certificate Expiry Date : 23-Aug-2027

To verify certificate, visit at :

www.arscert.com

www.uafaccreditation.org

www.iafcertsearch.org

Issued by ARS Assessment Private Limited

Abhishek
Managing Director



CB-MS-3923



UAF Address : 400, North Center Dr, STE 202, Norfolk, VA 23502, United States of America

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DRAFT WARRANTY

ALRAYYAN BUILDING INSULATION COMPANY WARRANTY

Warranties & Disclaimers.

Alrayyan Building Insulation Company warrants that GWALLS® systems manufactured by us are free from material defects under the conditions outlined in this policy.

This warranty applies only to the original buyer of products and applies only when the products have been stored, handled, and installed as per the instructions of GWALLS/Alrayyan Building Insulation.

This warranty applies only when the GWALLS is installed by GWALLS /Alrayyan Building Insulation company or approved installer or contractor by GWALLS or Alrayyan Building Insulation company.

Any damage claim must be submitted with 30 days of installation at site /delivery to the site.

Alrayyan Building Insulation Company warranty applies only to the products manufactured by Alrayyan Building Insulation Company.

Alrayyan Building Insulation Company will replace any damaged materials after a thorough investigation of the cause and written notice from the buyer.

GWALLS / Alrayyan Building Insulation Company will not be liable for any incidental damages, losses, costs, or expenses of any kind (loss of profit, loss of value for the structure, labor charges for replacing and re-installing products, injury to credit, reputation or goodwill, and exemplary or other similar damages) directly or indirectly resulting from any alleged breach of warranty.

No individual or company has any authority to bind or assume on behalf of Alrayyan Building Insulation Company and any liability, affirmation, undertaking, representation or warranty in connection with sales or use of other products except as stated herein,

No warranty is applicable or implied that is not explicitly mentioned in this draft.

The Warranty for any finishing material is excluded from the warranty scope.

The warranty-only for structural systems and ICF BLOCKS

This warranty does not include damages caused by acts of God, radiation, falling objects, explosions, earthquakes, fires, riots, civil commotions, acts of war, harmful gases or fumes, chemical or foreign substances in the air, or other external forces or unpredictable accidents beyond the control of ALRAYYAN BUILDING INSULATION FOR INDUSTRY COMPANY

This warranty shall be solely applicable to the CLIENT. This warranty is non-transferable and non-assignable. The CLIENT or its agents or representatives shall not claim, represent or imply, nor permit its customer, distributors, applicators, contractors, or any other person to claim, represent or imply that this warranty extends or is available to parties other than the CLIENT. The CLIENT shall cause any third party to cease any such misrepresentation. This condition shall constitute a material term of this warranty, and its violation by the CLIENT shall excuse ALRAYYAN BUILDING INSULATION FOR INDUSTRY COMPANY from its obligations.

All notices given under or pursuant to this warranty shall be in writing in English and Arabic sent by Registered Certified Mail, postage prepaid and return receipt requested to:

Product Manager

Al Rayyan Building Insulation company for the industry.

Address:

St. 34, 1st Industrial City,

Al Oyun, Al Ahsa

Saudi Arabia

Email ID: products@gwalls.sa

All terms and clauses under this warranty are to be construed and interpreted in accordance with Saudi law, and the parties shall submit to the exclusive jurisdiction of the Courts in the Kingdom of Saudi Arabia



PROJECT LIST

PROJECTS

KINGDOM OF SAUDI ARABIA

Hofuf Complex

Location : Al Hassa
Type : Commercial
Description : 6 Villas - 2500 Sqm



Qatif Villas

Location : Qatif Eastern Province
Type : Independent Villas
Description : 5 Villas - 1500 Sqm



STATE OF QATAR

Place Vendome - EIFS Decoration

Location : Lusail City

Type : Commercial

Description : 75000 Sqm , EIFS Cladding and Decoration Place Vendome Mall M1 & M2



Compound - Muraikh

Location : Doha

Type : Commercial

Description : 25000 Sqm 11" iForm (Vendor) Villa Compound 75 Villas



PROJECTS -UAE

JAFZA WAREHOUSE

Location : Dubai

Type : Commercial

Description : 140000 Sqm - 11" iForm (Vendor) Jebal Ali Free Zone Warehouse



PRIVATE PALACE PALM JUMEIRAH

Location : Palm Jumeirah

Type : Palace

Description : 6000 Sqm 11" iForm (Vendor) Palm Jumeirah, Private Villa



PRIVATE VILLA AL QUISAIS

Location : Al Quisis

Type : Villa

Description : 11" iForm (Vendor) Private Villa 20 Rooms , Al Quisis, Dubai, UAE

