



AIWEI INSULATION TECHNOLOGY CO.,LTD

Home Page: www.cellularglass.cn

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1.General Information

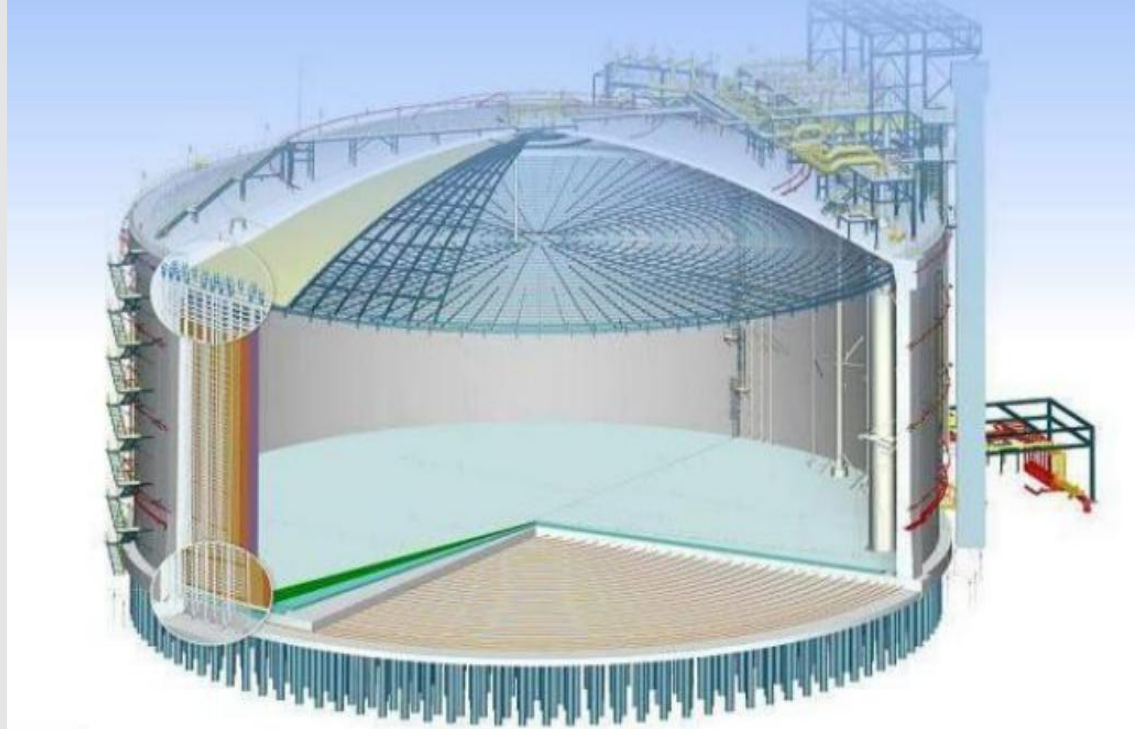
2.Production Information

3.Quality Assurance

4.Oversea Work Experience

5.Major Products Data Sheet

6.Installation Details



1.General Information

AIWEI Insulation was founded in 1995,as member of YaHong Industrial Group(AVICYH)

Group total fixed assets is 400 million CNY including:

JiaXing AiWei Insulation Technology Co.,Ltd

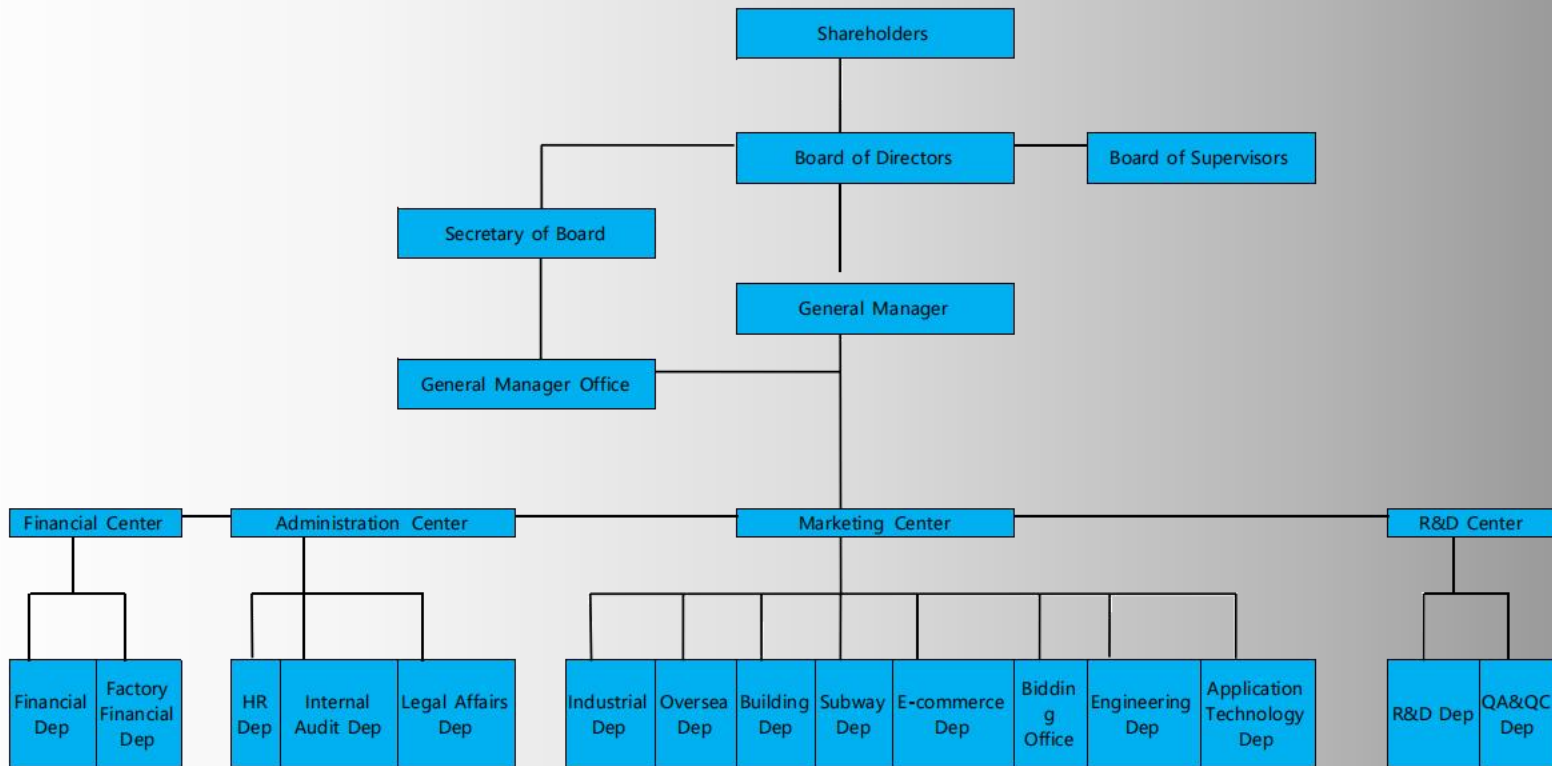
JiaXing AiWei Building Insulation Technology Co.,Ltd

SZECO Insulation Technology Co.,Ltd

Since 1995 engaged in developing, manufacturing, distributing and servicing of cellular glass and Insulation accessories With years of pragmatic striving and innovation,our annual capacity reaches 300,000 cubic meters. JiaXing production base output 200,000 cubic meters yearly and AnHui production base output 100,000 cubic meters yearly.

AIWEI implemented ISO9001 Quality Management System, ISO14001 Environmental Management System and ISO18001 Occupational Health and Safety Management System,SZECO[®] products cover the fields of petrochemical, coalchemical, LNG, low temperature, cold air, subway, underground moisture, cold, heat insulation, etc

1.1 Company Organization Chart



2. Production Information



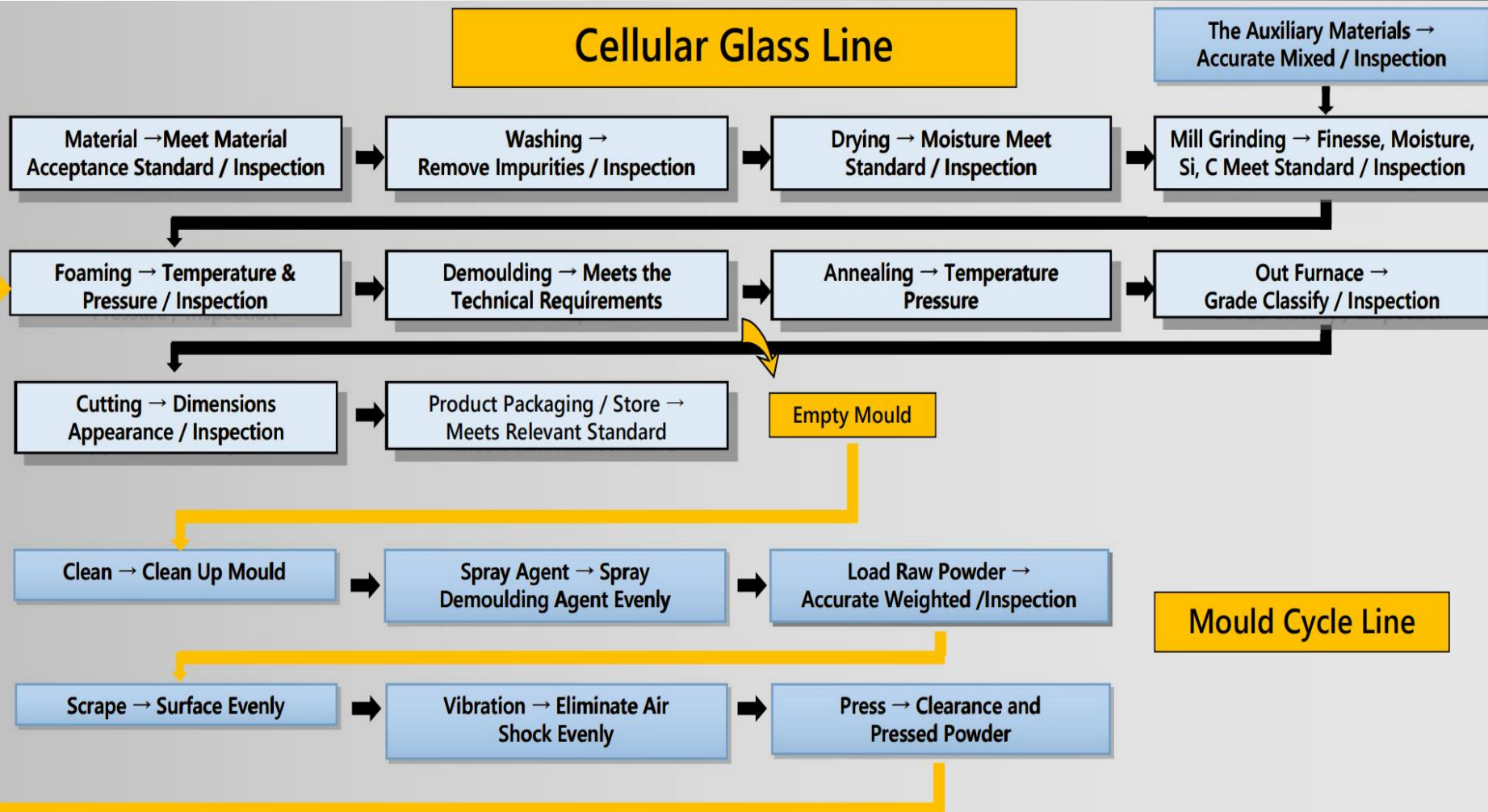
AIWEI is equipped with a special-purpose R&D testing center, and different glass compositions can be developed according to different industrial purposes in order to meet particular requirements. Advanced and reliable instruments are adopted to make overall chemical analysis and physical test on various raw materials and the whole production process, to guarantee product quality. Melt glass directly from quartz sand and mineral materials, and cellular glass quality can be controlled from the very beginning. Use the continuous high-accuracy ball mill grinding system to guarantee all



properties of cellular glass are even and steady. Automatic controlling is adopted for the overall temperature control, weighing precision, processing data and etc. The product quality is reliable and steady.



2.1 Production Process



2.2 Production Process Photo 1



Foaming Process



Automatic Transmit Cutting Process



Finished



Appearance Inspection



Sampling Inspection



CNC Wire Cutting Workshop

2.2 Production Process Photo 2



CNC Wire cutting for CG & PIR Pipe section



CNC Wire cutting for PIR pipe section



CG Anti-Abrasive coating job



CNC Wire cutting for CG pipe section

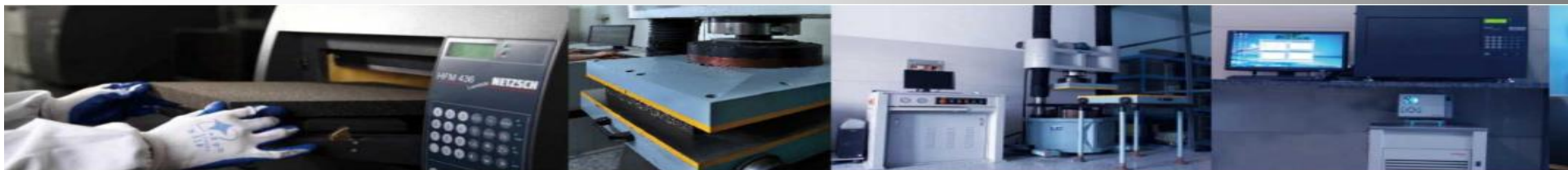


CG pipe section Dimension Inspection



CG Pipe section packing process

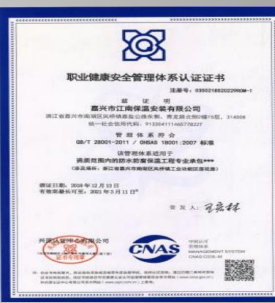
3.Quality Assurance



Product quality is the base of an enterprise. AiWei has its own R&D testing center, where a full chemical analysis and physical testing can be done on various raw materials, intermediate product and final product. For different uses, we can research and develop the processing formula by ourselves to meet different application environment and customers' requirement. Meanwhile, advanced and reliable testing equipments and instruments are used to test and control the whole production process to guarantee product quality. AIWEI starts strict quality control from raw material selection. All raw materials to be purchased must follow the technical specifications proposed by R&D testing center,



AIWEI starts strict quality control from raw material selection. All raw materials to be purchased must follow the technical specifications proposed by R&D testing center, and sampling test must be done for chemical and physical inspection before entering into warehouse. All production formula and processing data are provided by R&D testing center. R&D testing center makes random sampling test for each processing step as per lot, and only qualified products can go to next processing step. And R&D testing center is responsible for appearance quality and physical properties of final product as well.



4. Work Experience

In recent 5 years oversea work experiences

Project Location	Project Name	End User/Customer	Supplied Materials	Scope
KSA	Art Oasis project, Diriyah / Riyadh	Mohammed M. Al Rashid Trading & Contracting Company	SZECO® Cellular Glass Block	Supply
Qatar	QATARGAS LPG	INECO/INSULTHERMER	SZECO® Cellular Glass Block	Supply
Kazakhstan	Ethylene Refinery	KSS	SZECO® Cellular Glass Pipe Section Cellular Glas Block	Supply
Canada	OLEFINS STORAGE FACILITIES	Tornado Insulation Ltd Belform Insulation Ltd	SZECO® Cellular Glass Pipe Section Cellular Glas Block	Supply
Kuwait	Clean Fuels Project (CFP)	KNPC/INECO	SZECO® Cellular Glass AAC Pipe Section Cellular Glas Block	Supply
Iran	Abadan Refining Project	CDIECO	SZECO® Cellular Glass Block	Supply
KSA	Waad al Shamal Phosphate Project Maaden KSA	Hanwha Saudi Contracting Co. Ltd/INECO	SZECO® Cellular Glass AAC Pipe Section Cellular Glas Block	Supply
Vietnam	Vung tau Refining Project	HUYNH THIEN PHAT CO , LTD	SZECO® Cellular Glass Pipe Section Cellular Glas Block	Supply
UAE	Carbon Black Delayed Coker (CBDC) Project	ADNOC/Samsung HI/INECO	SZECO® Cellular Glass AAC Pipe Section Cellular Glas Block	Supply

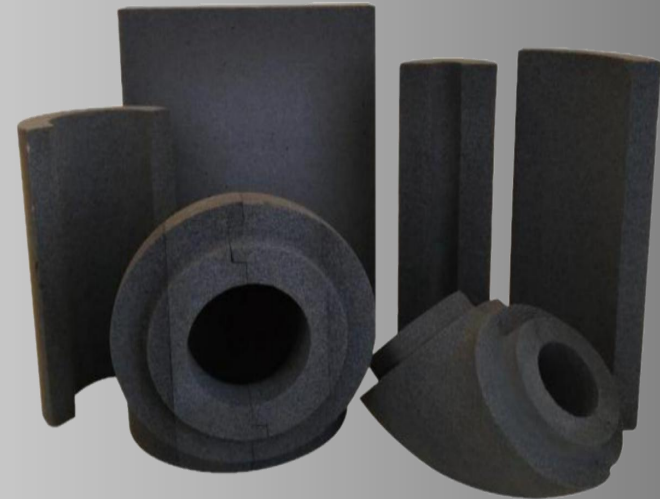
5.Major Products Data Sheet-Cellular Glass

Product Description

Cellular glass, its main composite is glass mixed with foam agent, produced through high temperature foaming and annealing, is a new type of inorganic thermal insulation material composed by thousands of tiny uniform hermetically sealed glass cells. The features are: low density, low thermal conductivity, vapor-tight, waterproof, non-combustible, mouldproof, pest proof, high mechanical strength but easy to process and anti chemical corrosion except hydrofluoric acid and etc. It contains no ozone depleting propellants, flame resistant additives or binders, without VOC or other volatile substances.

Technical Data

Density	ASTM C303	Kg/m ³	115	120	130	160
Thermal Conductivity	ASTM C177	W/ (m.k) (10°C)	≤0.040	≤0.043	≤0.045	≤0.048
Compressive Strength	ASTM C165	Mpa	≥0.50	≥0.80	≥0.70	≥1.6
Water Absorption	ASTM C240	Vol%	0.2	0.2	0.2	0.2
Service Temp	-	°C	268~+480	268~+480	268~+480	268~+480
Lineal Expansion Coefficient	ASTM E228	1/K	9×10 ⁻⁶	9×10 ⁻⁶	9×10 ⁻⁶	9×10 ⁻⁶
Bending strength.Ave	ASTM C203	Mpa	≥0.283	≥0.310	≥0.351	≥0.476
Combustibility	Non combustible					
Dimensional stability	excellent					
Capillarity	Zero					
Colour	Black/Gray					



Applications

Tank and tank base, pipeline, vessel, equipment, cryogenic ship, etc, for petroleum, chemical, refrigeration, underground projects,It can can be applied in severe environment like: low & cryogenic / hot temperature, underground, outdoors, flammable, wet, and chemical etc

5.1 Major Products Data Sheet-PUR | Polyurethane Foam

Product Description

Rigid Polyurethane Foam is a specialized cryogenic insulation material. It is mainly made from polyether polyols and isocyanate added with flame retardant, foaming agent and stabilizing agent, generating into closed-cell foaming body through chemical reaction after mixing and stirring. It has high closed cell content rate and low water absorption, it is applied to cryogenic thermal insulation.

Technical Data

Density	Kg/m ³	50±5	GB/T6343
Compressive Strength	Mpa	≥0.20	GB/T8813
Tensile Strength	Mpa	≥0.20	GB/T9641
Thermal Conductivity (25℃)	W/(m.k)	≤0.023	GB/T10294
Oxygen Index		≥26	GB/T2406.2
		≥30	
Water Absorption	%	≤5	GB/T8810
Service Temperature	℃	-80~100	



Applications

It's widely used in petroleum, chemical, ethylene industries, as well as in cold storage, refrigeration and residential. PUF can be prefabricated into different shape segments in workshop, it also can be spary or foamed on site.

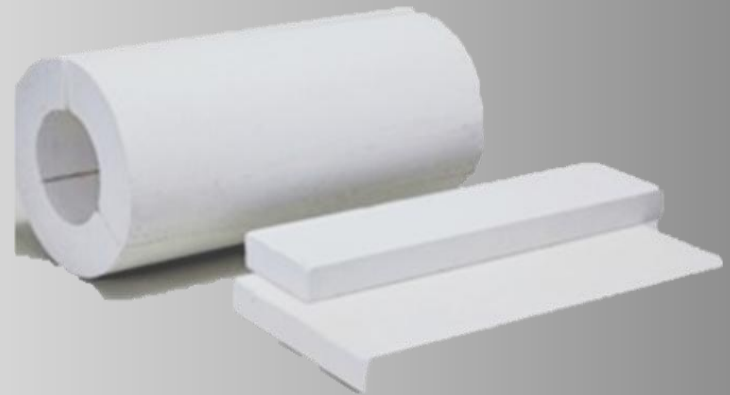
5.2 Major Products Data Sheet-Perlite

Product Description

It is the waterproof heat insulation material that is asbestos-free and of high intensity with high quality perlite particles as the main material and made by cohering inorganic bond and reinforced fiber (It is a non-asbestos, high performance and water repellent insulating material that is composed of high-quality expanded perlite particles, bonded with inorganic binder and reinforcing fiber); its highest at temperature is 650°C, with super-low heat conductivity coefficient and super-low chloride ion content, it has very good protection on peripheral steel pipes; being prefabricated to shape up and resistant to deform, it has the same service life of buildings. It is not only able to have heat reservation function on petrochemical industry pipelines and equipment, but also has very nice fire prevention and radiation resistance.

Technical Data

PROPERTIES		UNIT	ASTM C610-07
Density		Kg/m3	≤240
Maximum Service Temperature		°C	650
Thermal Conductivity	(38°C)	W/m.k	≤0.069
	(93°C)		≤0.076
	(149°C)		≤0.085
	(260°C)		≤0.099
	(371°C)		≤0.115
Flexural Strength		MPa	≥0.310
Compressive Strength		MPa	≥0.483
Moisture Content per		%	≤10
Surface Burning	Flame Spread Index	●	≤0
Hot Surface Performance(650°C)		CM	≤0.635
			(No through-cracking)
Non-Combustible Property per ASTM E 136		●	Pass
Chlorine Content		●	ASTM C795



Applications

It is applicable to equipments and pipeline facilities in chemical industry, electricity and heat supply network.

5.3 Major Products-Insulation Accessories

Sealant



Sealant is a flexible, low solvent content thick paste. It is comprised of macromolecular resin, has good sealing performance in low temperature.

Adhesive



Adhesive is a one component, solvent free, PUR-based, non-toxic, low odor adhesive. It is composed of polyether and additives, can be applied at room temperature by brush or spray conveniently. It can set at ambient temperature. The dry film is insoluble, has good waterproofing performance.

Mastic

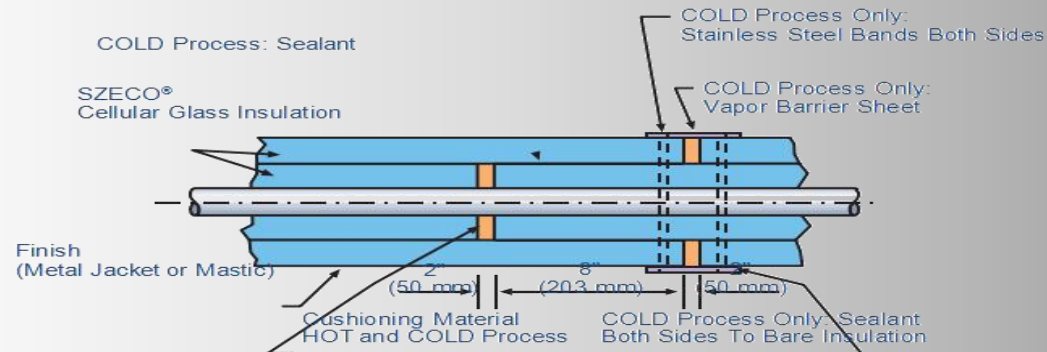


Mastic is an excellent airtight, waterproofing, durable vapor barrier. It is comprised of asphalt, rubber, and mineral filler. It can be applied and will not crack for cold-process application at ambient temperature.

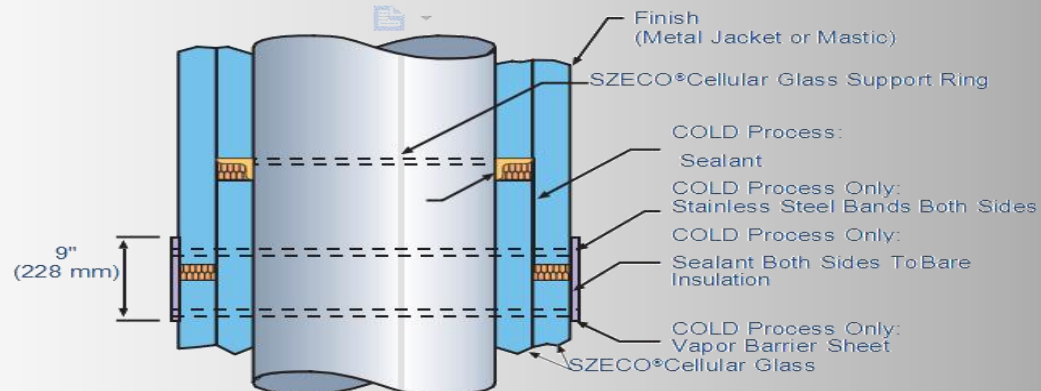
6. Installation Details

TYPICAL ABOVE GROUND INSTALLATION DETAILS

Two-Layer Expansion Contraction Joint



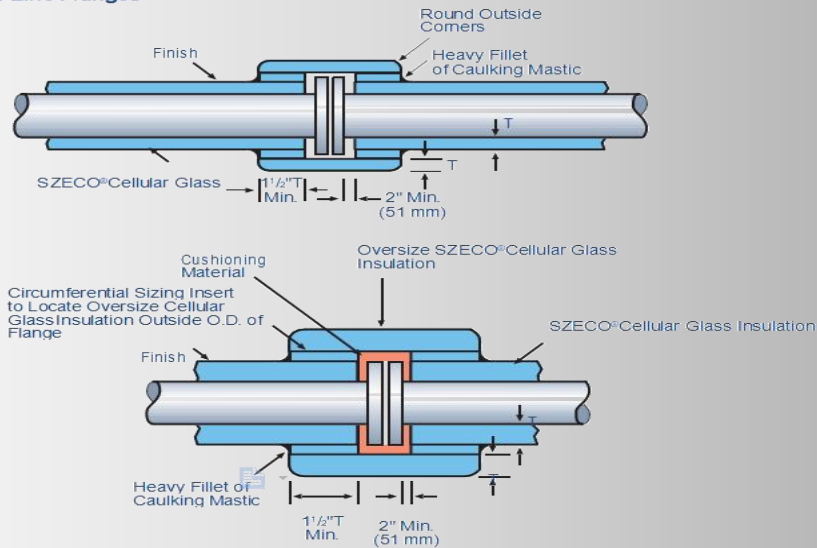
Vertical Contraction Joint



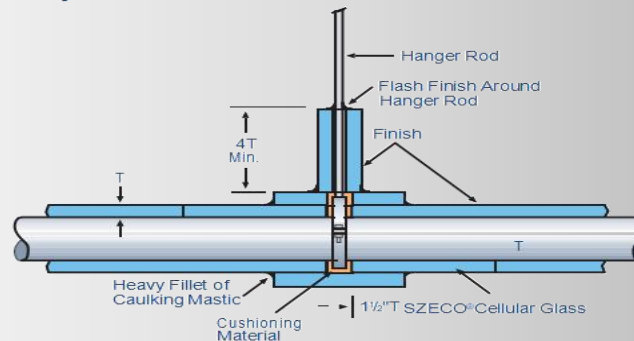
6.1 Installation Details

TYPICAL ABOVE GROUND INSTALLATION DETAILS

Insulation on Line Flanges



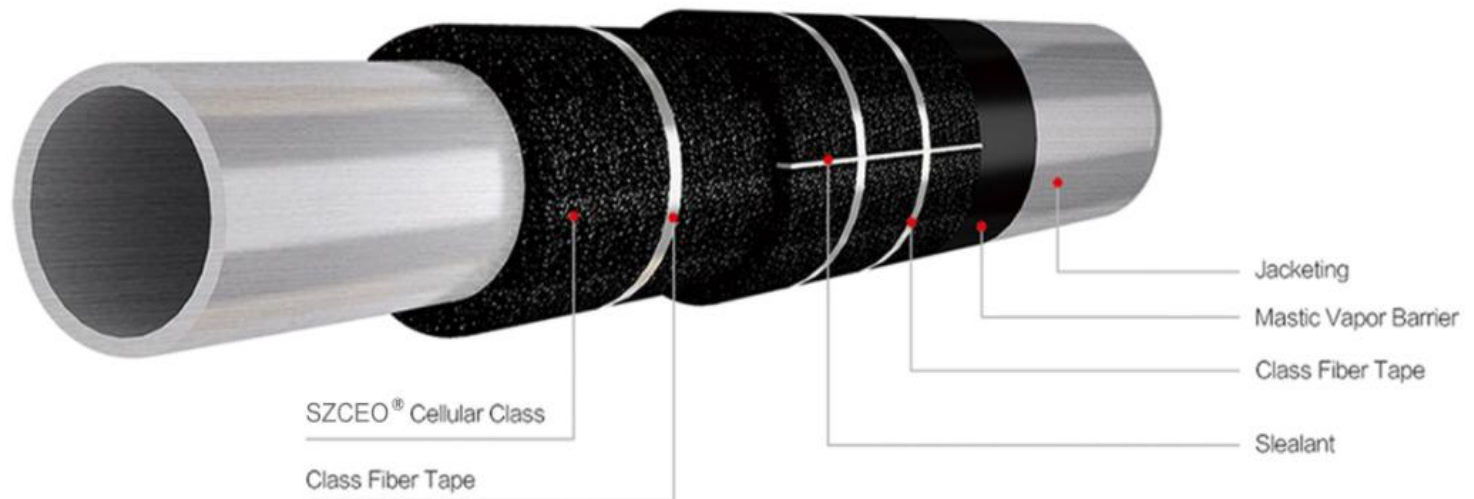
Pipe Hanger Assembly Insulation



6.2 Installation Details

Piping Insulation

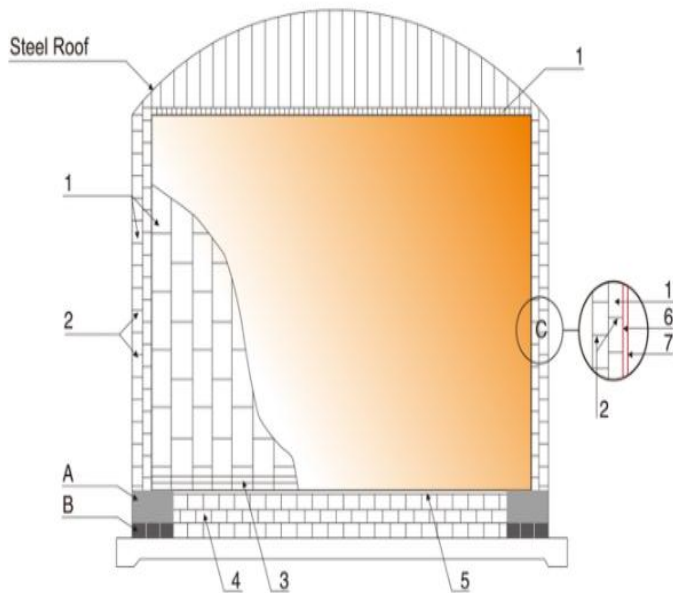
SZECO® Cellular Glass Double-Layer Insulation Structure



6.3 Installation Details

Tanks Insulation

Single-wall tank



Detail A

Concrete Perlite

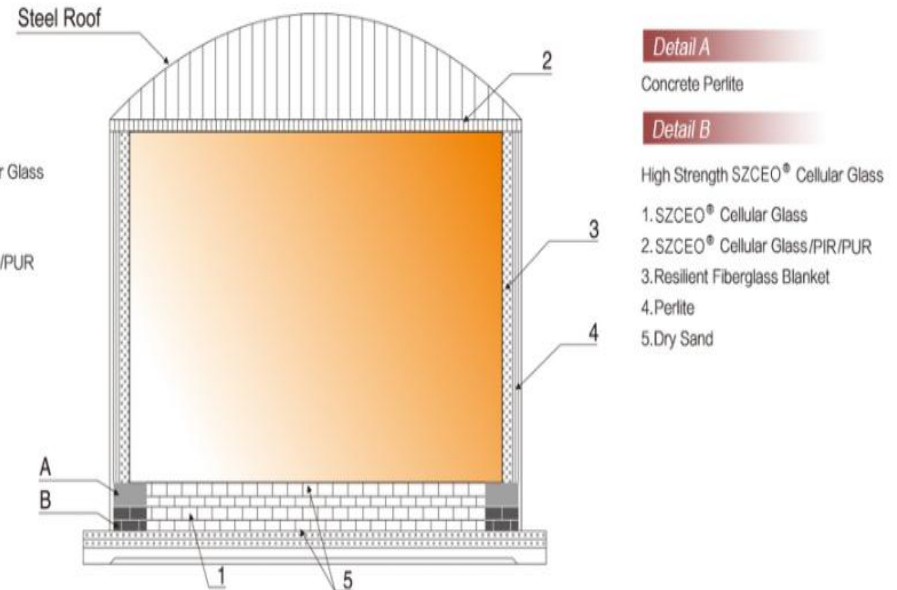
Detail B

High Strength SZCEO® Cellular Glass

Detail C

1. SZCEO® Cellular Glass / PIR / PUR
2. Joint Sealant
3. s.s. Band
4. SZCEO® Cellular Glass
5. Dry Sand
6. Mastic Vapor Barrier
7. Metal Jacketing

Double-wall tank



Detail A

Concrete Perlite

Detail B

High Strength SZCEO® Cellular Glass

1. SZCEO® Cellular Glass
2. SZCEO® Cellular Glass / PIR / PUR
3. Resilient Fiberglass Blanket
4. Perlite
5. Dry Sand