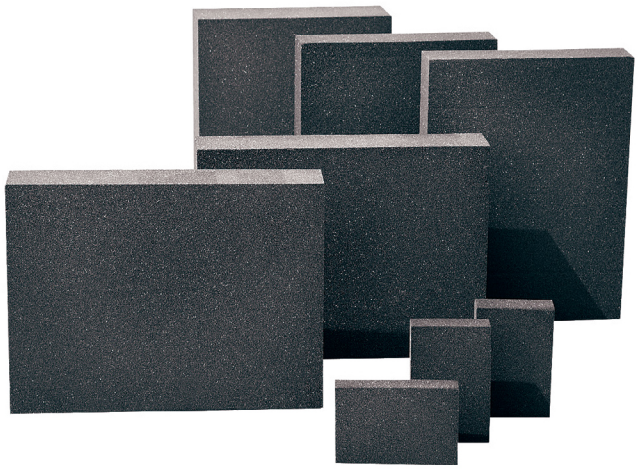
ZHENSHEN INSULATION

CELLULAR GLASS

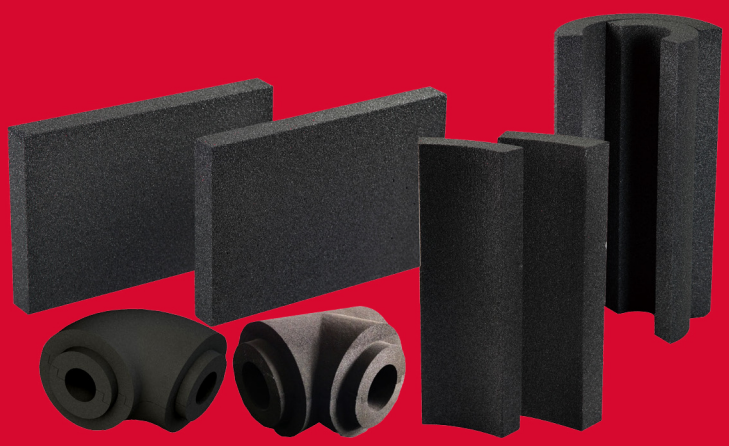
ZES cellular glass is a rigid inorganic thermal insulation product, composed of uniform closed cells. It is made from pure glass, through high temperature foaming and annealing. It is characterized by lightweight, low thermal conductivity and high compressive strength, can be applied for pipe and equipment insulation, as well as tank bottom. It is used for insulation of:

Petrochemical
LNG, LPG
Power plant
Shipyard
Building insulation



ADVANTAGES

- Applicable for both cryogenic and high temperature
- High compressive strength
- Low thermal conductivity
- No water absorption, no permeability, excellent airtight property
- Good dimensional stability
- Non-combustible
- Corrosion/chemical/vermin resistant
- Inorganic and long service life
- Nontoxic, harmless, and eco-friendly
- Easy to work with



ZES Cellular Glass Specification

Properties	ZES500	ZES800	ZES1000	ZES1200	ZES1400	ZES1600	ZES2400
Density (kg/m^3) Avg ±15%	110	120	130	140	150	160	210
Compressive strength Avg min. (MPa)	0.5	0.8	1	1.2	1.4	1.6	2.4
Flexural strength Min. (MPa)	0.3	0.31	0.36	0.39	0.44	0.48	0.63
Water absorption, max. volume %	0.2						
Water vapor permeability, max. ($ng \cdot Pa^{-1} \cdot s^{-1} \cdot m^{-1}$)	0.007						
Surface burning characteristics	Non combustible						
pH Value	Between 6 and 10						
Leachable chlorides	Maximum 45 ppm						
Thermal Conductivity (W/m·K) at mean temperature of: °C							
204	0.084	0.080	0.081	0.083	0.084	0.084	0.084
149	0.069	0.067	0.069	0.071	0.071	0.071	0.071
93	0.058	0.056	0.057	0.059	0.060	0.060	0.060
38	0.048	0.046	0.047	0.049	0.050	0.050	0.050
24	0.045	0.045	0.045	0.047	0.048	0.048	0.048
10	0.042	0.042	0.043	0.045	0.046	0.046	0.046
–18	0.039	0.037	0.039	0.041	0.042	0.042	0.042
–46	0.035	0.034	0.035	0.037	0.038	0.038	0.038
–73	0.030	0.030	0.032	0.034	0.035	0.035	0.035
–101	0.027	0.027	0.029	0.031	0.032	0.032	0.032
–129	0.025	0.025	0.026	0.028	0.029	0.029	0.029
–157	0.023	0.022	0.024	0.026	0.026	0.026	0.026

ZES
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