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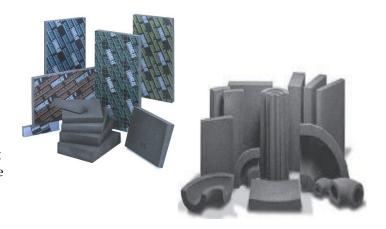
www.foamglas.com



Technical Bulletin
Sustainable Design & LEED®

FOAMGLAS® Insulation and Sustainable Design

FOAMGLAS® cellular glass insulation contributes to sustainable design. Sustainable design is becoming increasingly more important, and demand for sustainable products with low environmental impact continues to grow. FOAMGLAS® cellular glass insulation offers a unique combination of characteristics not often found in a construction material – it is made from abundant raw materials, and many manufacturing facilities include recycled content. It has highly desirable physical properties, as well as proven sustainable performance. FOAMGLAS® insulation is 100% glass, manufactured from sand, limestone, and other



abundantly available materials. FOAMGLAS® insulation is free of HCFCs, and is non-combustible and dimensionally stable. FOAMGLAS® insulation has high compressive strength and retains its thermal performance properties. It is resistant to moisture, in both liquid and vapor form, and corrosion, and the product has proven it's durability in the field. FOAMGLAS® insulation is used in a wide variety of applications, including piping and vessel insulation, as well as wall, floor, and roof insulation. It is used in the industrial and commercial building construction.

FOAMGLAS® Insulation and LEED®

The LEED® (Leadership in Energy and Environmental Design) Green Building Rating System is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. While the use of no single construction material can earn points in the LEED® Green Building Rating System, FOAMGLAS® insulation can be used as part of an overall strategy to earn points in several categories.

Sustainable Sites

Credit 6 - storm water management

Credit 7.2 – roof heat island effect

Vegetated roofs provide the benefit of reducing or attenuating the flow of storm water that often overwhelms drainage systems in urban areas. In addition, vegetated roofs provide the advantage of lowering the amount of heat absorbed by traditional roofing materials. Using FOAMGLAS® cellular glass insulation for its compressive strength, moisture resistance, and thermal properties as part of a vegetated roof design is a sustainable strategy that supports both storm water management and roof heat island effect sustainable site credits.



FOAMGLAS® Insulation as part of an intensive vegetated roof system

Energy & Atmosphere

<u>Prerequisite 2</u> – minimum energy performance

Credit 1 – optimize energy performance

Using FOAMGLAS® cellular glass insulation for its dimensional stability and insulating performance contributes to an overall strategy to help achieve the required energy performance and help reduce the amount of energy consumed by a building.

Prerequisite 3 – fundamental refrigeration management

Credit 4 - enhanced refrigeration management

Using FOAMGLAS® cellular glass insulation for its thermal properties, moisture resistance, and durability may be part of an overall strategy to reduce or eliminate HCFC's in HVAC&R systems.



FOAMGLAS® insulated chilled water piping

Materials & Resources

Credit 2 – construction waste management

FOAMGLAS® cellular glass insulation is available in prefabricated pipe and slab insulation, resulting in little or no construction site waste - any resulting waste can be crushed to less than 10% of it original volume for disposal. FOAMGLAS® cellular glass insulation is 100% glass.

Credit 4.1 & 4.2 – recycled content

FOAMGLAS® cellular glass insulation incorporates in excess of 30% recycled glass content at many of its manufacturing facilities.

<u>Credit 5.1 & 5.2</u> – regional materials

FOAMGLAS® cellular glass insulation is manufactured at regional facilities located in the Central and Southern United States, and Northern and Central Europe. FOAMGLAS® insulation is manufactured primarily from abundant regional raw or recycled materials, and a large portion of these materials can be included in the regional material calculation if the project site is within 500 miles of both the source of materials and the manufacturing site.

Indoor Environmental Air Quality

Credit 4 – low emitting materials

Although insulation is not specifically considered in this section, using FOAMGLAS® cellular glass insulation eliminates another source of VOC's in a building. Additionally, low-VOC sealants and adhesives can be used as part of an overall strategy to use low emitting materials.

Innovation & Design

<u>Credit 1.1</u> – durable materials

<u>Credit 1.2</u> – good indoor environmental quality

Using FOAMGLAS® cellular glass insulation for its performance and durability can be part of an overall strategy for use of durable materials and for good indoor air quality. FOAMGLAS® insulation is water and vapor resistant, non-flammable, vermin resistant, strong, chemically resistant, easy to fabricate, and dimensionally stable.

FOAMGLAS® insulated facade

Links to manufacturer website:

General Information, Technical Information, and Material Safety Data Sheets can be found at www.foamglas.com

