



# **Sustainability Information** **Earthwool® 1000° Pipe Insulation** *with ECOSE® Technology*



# Sustainability Information - Earthwool® 1000° Pipe Insulation

## Earthwool® 1000° Pipe Insulation with ECOSE® Technology

Description: Inorganic glass fiber pipe insulation with a bio-based binder, having a better quality All Service Jacket (ASJ+) and a self-sealing lap adhesive closure system (SSL).

### Post-Consumer Glass Recycled Content:

This product is verified by UL Environment to be 58.5% post-consumer glass content by weight. This is validated annually. The last validation date was August 10, 2012. If more than 12 months has elapsed, then please call for updated values at 317-398-4434 X-8811. 3rd party documentation is accessed at the following web address: <http://www.ul.com/global/eng/pages/offerings/businesses/environment/databasesearch/iframe/>

### Rapidly Renewable Content:

Ecosse® Technology is bio-based and makes-up 8% of the product's weight. Carbon dating tests per ASTM verify the binder to be 98% bio-based. *Note: Biobased Content is the percentage of the total organic carbon that is modern (present day) in origin. Analysis was performed by Iowa State University using conventional radiocarbon analytical procedures as specified in ASTM Method D6866. This method is believed to be accurate to within 3% (absolute).*

### Indoor Environmental Quality:

This product is certified by UL Environment and complies with the GREENGUARD Gold testing and auditing protocols. This product is also verified to be formaldehyde free.

3rd party documentation is available at the following web address: <http://www.ul.com/global/eng/pages/offerings/businesses/environment/databasesearch/iframe/>

### Health & Safety of Glass Fiber:

All Knauf Insulation products are manufactured with glass fibers manufactured to be biosoluble and are classified as exonerated fibers by the EUCEB testing and auditing protocol. 3rd party documentation may be accessed at the following web address: <http://www.euceb.org/certified-companies>

### Manufacturing Location:

This product is manufactured in Shelbyville, Indiana 46176. Ingredients are numerous and are sourced nationally.

### General Product Transport Data: (%truck/%rail)

Internal to our warehouses - 67/33  
 U.S. customer shipments – 87/13  
 Canada customer shipments – 77/23  
*(These transportation data reflect the average of all Knauf Insulation products.)*

### Fire Retardant Information:

This products does not contain polybrominated diphenyl ethers (PBDE) such as; Penta-BDE, Octa-BDE or Deca-BDE.

## USGBC LEED® Green Building Rating Examples<sup>1</sup>

### Credit Opportunity Examples Based on LEED 2009

LEED Credit Category	Contribution	Possible Credits
MR Credit 4 Recycled Content 10% or 20%	This product has a post-consumer glass content of 58.5% by weight	2
MR Credit 5 Regional Materials Extracted, Processed and Manufactured regionally 10% or 20%	This product is manufactured in its entirety in Shelbyville, IN 46716. Extraction is broad-based	2
MR Credit 6 Rapidly Renewable Content 2.5%	This product has a rapidly renewable content of 8% by weight	1
MR Credit 1 Optimized Energy Performance	This product helps reduce energy demand and provides compliance with codes	1-19
EA Credit 1 Optimize Energy Performance	This product is extremely low emitting and will not contribute to the EPA compendium method	1
EQ 3.2 Indoor Air Quality, Option 2 Air Testing	This product is mold resistant when tested in accordance with ASTM C1338	1
ID Credit 1-1.4 Innovation in Design	This product meets GREENGUARD Gold and is verified to be formaldehyde free	1

<sup>1</sup>Mechanical insulation products such as pipe insulation must be bid outside of the mechanical contract in order to isolate their economic value for calculation of credit contribution.

The annual Knauf Insulation 2012 Sustainability Report is accessible at: <http://www.knaufinsulation.us/content/sustainability-report>



Knauf Insulation LEED NC Gold Corporate Engineering Building in Shelbyville, Indiana

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## Affiliations:



ECOSE® Technology is a revolutionary binder chemistry that makes Knauf Insulation products even more sustainable than ever. It is based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals traditionally used in fiber glass insulation products. ECOSE Technology reduces binder embodied energy and does not contain phenol, formaldehyde, acrylics or artificial colors.



ECV



GREENGUARD Gold



USGBC Member



EUCEB  
 European Certification Board for Mineral Wool Products



C-UL-US Classification  
 Compliance with both Canadian and U.S. requirements