



EPD Transparency Summary

Knauf Insulation

COMPANY NAME

Pipe Insulation

PRODUCT TYPE

Earthwool® 1000° Pipe Insulation with ASJ+ jacket

PRODUCT NAME

PRODUCT DEFINITION

Earthwool® 1000° pipe insulation is composed of glass mineral wool made from inorganic glass strands bonded with Ecose® technology. It is produced in 3-foot lengths, both with and without factory-applied ASJ+ (all-service jacket). The insulation is available in thicknesses up to 5-inches thick for pipe diameters up to 10 inches.

PRODUCT CATEGORY RULE (PCR)

Building Envelope Thermal Insulation + Mechanical Insulation Addendum, version 1.3
UL 2014

CERTIFICATION PERIOD

09/12/2014 - 09/12/2019

DECLARATION NUMBER

4786187073.101.1



LIFECYCLE IMPACT CATEGORIES

The environmental impacts listed below were assessed throughout the product's lifecycle – including raw material extraction, transportation, manufacturing, packaging, use, and disposal at end of life.

	ATMOSPHERE			WATER		EARTH	
	<p>Global Warming Potential refers to long-term changes in global weather patterns – including temperature and precipitation – that are caused by increased concentrations of greenhouse gases in the atmosphere.</p>	<p>Ozone Depletion Potential is the destruction of the stratospheric ozone layer, which shields the earth from ultraviolet radiation that's harmful to life, caused by human-made air pollution.</p>	<p>Photochemical Ozone Creation Potential happens when sunlight reacts with hydrocarbons, nitrogen oxides, and volatile organic compounds, to produce a type of air pollution known as smog.</p>	<p>Acidification Potential is the result of human-made emissions and refers to the decrease in pH and increase in acidity of oceans, lakes, rivers, and streams – a phenomenon that pollutes groundwater and harms aquatic life.</p>	<p>Eutrophication Potential occurs when excessive nutrients cause increased algae growth in lakes, blocking the underwater penetration of sunlight needed to produce oxygen and resulting in the loss of aquatic life.</p>	<p>Depletion of Abiotic Resources (Elements) refers to the reduction of available non-renewable resources, such as metals and gases, that are found on the periodic table of elements, due to human activity.</p>	<p>Depletion of Abiotic Resources (Fossil Fuels) refers to the decreasing availability of non-renewable carbon-based compounds, such as oil and coal, due to human activity.</p>
TRACI	5.89 kg CO2 eq	1.56E-09 kg CFC-11 eq	0.199 kg O3 eq	0.971 kg mol H+ eq	1.34E-03 kg N eq		
CML							

The functional unit is one (1) kilogram of insulation material with one (1) square meter of jacket with a building service life of 60 years.

FUNCTIONAL UNIT





MATERIAL CONTENT

Material content measured to 1%.

COMPONENT	MATERIAL	AVAILABILITY	MASS%	ORIGIN
Batch	Post-consumer cullet	Recycled resource	43%	North America
Batch	Sand	Mineral resource	17%	North America
Batch	Borax	Mineral resource	7.2%	North America
Batch	Soda ash	Mineral resource	6.9%	North America
Batch	Dolomite	Mineral resource	2.6%	North America
Batch	Nepheline syenite	Mineral resource	2.1%	North America
Batch	Limestone	Mineral resource	1.6%	North America
Binder	Sugars	Renewable	6.6%	North America
Binder	Diammonium phosphate	Mineral resource	2.3%	North America
Binder	Silane	Mineral resource	< 1%	North America
Jacket	Kraft paper	Renewable	3.8%	North America
Jacket	Other jacket materials	Mineral resource, recycled resource	4.8%	North America

ADDITIONAL ENVIRONMENTAL INFORMATION

PRE-CONSUMER RECYCLED CONTENT	0%
POST-CONSUMER RECYCLED CONTENT	43%
VOC EMISSIONS	UL GREENGUARD Gold
WATER CONSUMPTION	6.84 L

ENERGY

RENEWABLE ENERGY	15 %	15.3 MJ
NON-RENEWABLE ENERGY	85 %	88.1 MJ

MANUFACTURER CONTACT INFO

NAME	Knauf Insulation
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EMAIL	
WEBSITE	www.knaufinsulation.us

RECYCLING OR REUSE

Pipe insulation disposal should comply with local regulations. While insulation can be reused and recycling is feasible, there are minimal recycling programs and infrastructure; therefore, current practice is to send the waste to a landfill.

STANDARDS

ASTM C 547
ASTM C 1136 (jackets)
HH-I-1030B; Class B

CERTIFICATIONS

