CERTIFIED
ENVIRONMENTAL PRODUCT DECLARATION
UL.COM/EPD

EPD **Transparency Summary**

COMPANY NAME	**Armacell Asia Pte. Ltd.**
PRODUCT TYPE	**Mechanical Insulation**
PRODUCT NAME	Armaflex® Class 1
PRODUCT DEFINITION	Flexible Elastomeric Foam Insulation made of synthetic rubber, for the insulation of pipes and ducts.
PRODUCT CATEGORY RULE (PCR)	Mechanical Insulation, Version 1.3, UL 2014
CERTIFICATION PERIOD	**August 25, 2015 - August 25, 2020**
DECLARATION NUMBER	**4786944121.101.1**

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	
	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.	**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.	**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.	**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.	**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.	**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.	**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.
TRACI							
CML	**5.69E+00** kg CO2 eq	**2.47E-07** kg CFC-11 eq	**2.34E-03** kg C2H4 eq	**3.80E-01** kg SO2 eq	**9.53E-02** kg PO4		

FUNCTIONAL UNIT: 1 kg of insulation material without facing with a building service life of 60 years

Environment

MATERIAL CONTENT

Material content measured to 1%.

COMPONENT	MATERIAL	AVAILABILITY	MASS%	ORIGIN
	Rubber and Polymers		28	
	Fillers and pigments		7	
	Blowing agent		15	
	Vulcanization system, additives, plasticizers		26	
	Flame retard		25	

ADDITIONAL ENVIRONMENTAL INFORMATION

PRE-CONSUMER RECYCLED CONTENT	%
POST-CONSUMER RECYCLED CONTENT	%
VOC EMISSIONS	GREENGUARD Gold
WATER CONSUMPTION	

RECYCLING OR REUSE

ENERGY

RENEWABLE ENERGY	5.1 %	3.85 MJ
NON-RENEWABLE ENERGY	94.9 %	72.27 MJ

MANUFACTURER CONTACT INFO

NAME	Armacell Asia Pte. Ltd.
PHONE	+65-6733 5886
EMAIL	info.singapore@armacell.com
WEBSITE	www.armacell.com

STANDARDS

ASTM C534
EN 14304
GB/T 17794
KS M 6962
BS 476 Part 7 - Class 1 Rating
FM 4924
UL 94
EL 243
UL 2818

CERTIFICATIONS