



EPD Transparency Summary

COMPANY NAME **LCN**

PRODUCT TYPE **Door Closers**

PRODUCT NAME **4000 Series Door Closers**

PRODUCT DEFINITION The 4000 series of products include door closers designed for commercial use. Door closers within this series are ANSI grade 1 products. The LCA for this EPD is based on an average product within the 4000 series line.

PRODUCT CATEGORY RULE (PCR) Product Category Rule (PCR) for preparing an Environmental Product Declaration (EPD) for Product Group, Builders Hardware UL9004. Version: April 3rd, 2014.

CERTIFICATION PERIOD **March 28, 2016 - March 27, 2021**

DECLARATION NUMBER **4787103471.109.1**



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	1.88E+01	1.09E-08	8.56E-01	7.88E-02	1.51E-03	N/A	1.39E+01
CML	1.88E+01	9.37E-09	1.06E-02	9.32E-02	8.90E-03	1.85E-04	2.17E+02

FUNCTIONAL UNIT 1 average 4000 Series Door Closer. The values above are the sum of Modules A1-C4.





MATERIAL CONTENT

Material content measured to 1%.

COMPONENT	MATERIAL	AVAILABILITY	MASS%	ORIGIN
Closer Body	Steel	Abundant, non-renewable	53%	US
Closer Body	Iron	Abundant, non-renewable	37%	US
Closer Body	PPE	Abundant, non-renewable	4%	US
Lubircant	Liquid X Oil	Abundant, non-renewable	4%	US
Closer Body	Nylon Part	Abundant, non-renewable	<1%	US
Others	Others	Abundant, non-renewable	<1%	US

ADDITIONAL ENVIRONMENTAL INFORMATION

PRE-CONSUMER RECYCLED CONTENT	Various %
POST-CONSUMER RECYCLED CONTENT	Various %
VOC EMISSIONS	0
WATER CONSUMPTION	3.03E+00

ENERGY

RENEWABLE ENERGY	0 %	MJ
NON-RENEWABLE ENERGY	100 %	MJ

MANUFACTURER CONTACT INFO

NAME	Tim Weller
PHONE	1.317.810.3700
EMAIL	Tim.Weller@allegion.com
WEBSITE	http://us.allegion.com/communities/architects/solutions/Pages/green.aspx

RECYCLING OR REUSE

LCN products may be recycled or reused at the end of life. The LCA that this EPD is created from takes the conservative approach by assuming that all products are disposed of within the system boundary. However, potential recycling is an option based on local availability.

STANDARDS

ANSI/BHMA A156.4

Operational and Security, UL Listed for self-closing doors without hold-open under "SWINGING DOOR CLOSERS"(GVEV) file R1943

CERTIFICATIONS

