

Product Life Cycle Analysis (LCA) Comparison **EcoImpact COMPASS Report**

This LCA Compares Shrink Film Types

Product Names and Quantity: Virgin Shrink Bundling(1), 30%PCR Shink Bundling(1), 50%PCR Shink Bundling(1)

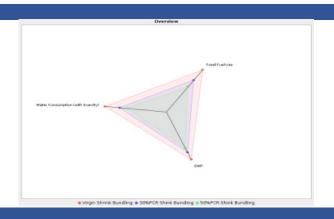
Report Number: 2023-07-25T133605 Data Version: COMPASS 2023.1

Region: USA

These sections show the summary and the total impacts for each selected indicators used for the Life Cycle Analysis. Each indicator is composed of the material extraction, manufacturing, transportation, end of life, and use phase impacts. This will allow you to determine which life cycle phase has the greatest impact.

LCA SUMMARY

Overview			
Indicators	BOMs		
Name	Virgin Shrink Bundling	30%PCR Shink Bundling	50%PCR Shink Bundling
Fossil Fuel Use	1590.5	1202.09	949.21
GWP	59.73	50.83	45.37
Water Consumption			
(with Scarcity)	24486.29	18637.2	15745.76



INDICATORS

Fossil Fuel Use (GJ deprived)

This indicator considers the total quantity of fossil fuel consumed throughout the life cycle reported in gigajoules (GJ) equivalents deprived/kg dissipated, which is based on an extraction-consumption-competition-adaptation approach. This indicator uses the Impact World+ method, uses the primary energy content, and assumes fossil resources mainly used for energy purposes. Fossil fuels include coal, petroleum, and natural gas.

30%PCR Shink Bundling Barrels of Oil 63.49 Average Homes Powered Yearly 10.38 50%PCR Shink Bundling Barrels of Oil 104.82 Average Homes Powered Yearly 17.13

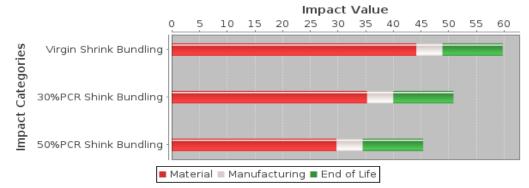
IMPACTS

Fossil Fuel Use (GJ deprived)



GWP (ton CO2 eq.) Global Warming Potential (GWP) considers the total quantity of greenhouse gasses (GHG) emitted throughout the life cycle reported in kilograms of CO2 equivalents. This calculation follows the IPCC Sixth Assessment Report (AR6) 2021 100a w/o CO2 Uptake method and considers climate feedback loops. It considers global warming potential for a 100-year timeframe.

GWP (ton CO2 eq.)

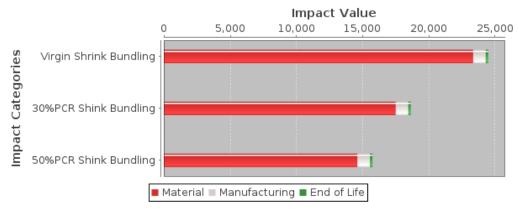


IMPACTS			
30%PCR Shink Bundling			
Passenger Vehicles Driven Yearly	1.9		
Miles Driven by Passenger Vehicles Yearly	21800.77		
Liters of Gasoline Consumed	3788.7		
Tree Seedlings Grown for 10 Years	230.49		
Acres of Forests Yearly	10.46		
50%PCR Shink Bundling			
Passenger Vehicles Driven Yearly	3.07		
Miles Driven by Passenger Vehicles Yearly	35190.06		
Liters of Gasoline Consumed	6115.58		
Tree Seedlings Grown for 10 Years	372.05		
Acres of Forests Yearly	16.89		

Water Consumption (with Scarcity) (m3 world-eq) This indicator considers the relative available water remaining per area in a watershed after the demand of humans, aquatic ecosystems, and manufacturing process has been met, compared to the world average. The AWARE method is used to calculate the water scarcity footprint, which looks at the potential to deprive another freshwater user by consuming freshwater in a given region. The water scarcity footprint is the water consumption inventory multiplied by a characterization factor, which is based on the availability and demand of freshwater in a given region. The characterization factors have a range of 0.1 to 100, with higher numbers associated with more water-scarce regions, and are dimensionless (m3 world eq./m3). The water scarcity footprint results are typically reported in m3 world-eq. but may be reported in liters world-eq. if there is a small quantity of water being considered in the analysis by EcoImpact-COMPASS.

IMPACTS				
30%PCR Shink Bundling				
Gallons of Water	1545335.1			
Average Showers	89847.82			
People Showering Daily for a Year	246.16			
Olympic Sized Swimming Pools	2.34			
50%PCR Shink Bundling				
Gallons of Water	2309254.33			
Average Showers	134263.1			
People Showering Daily for a Year	367.84			
Olympic Sized Swimming Pools	3.5			

Water Consumption (with Scarcity) (m3 world-eq)



Note: This LCA represents information about INDEVCO Packaging Solutions products only. The COMPASS report uses life cycle inventory (LCI) data that represents an industry average for materials, manufacturing processes, and end of life impacts. The Life Cycle Analysis (LCA) in this report can be used for directional guidance in internal decision making and understanding trade-offs. COMPASS follows the guidelines of ISO 14040 in determining and documenting the scope, assumptions, consistent boundary conditions and data sources. According to ISO 14040, LCA results should not be used to make comparative assertions between competitive products to be disclosed to the public without first conducting a third party critical review.

Ask about our Carbon Footprint Reduction Program to help you improve your company's packaging footprint

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