Life Cycle Assessment: Western Digital Ultrastar® DC HC550 Hard Disk Drive (HDD):

Model	0F38478
Product Type	Enterprise SSD
Product Weight	679 gm
Packaging Weight	210 gm
Storage Capacity	18 Terabyte ¹
Model	SATA
Form Factor	3.5 Inch
Application	Enterprise data center application



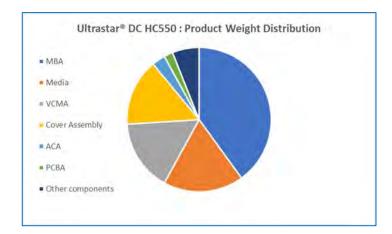
LCA Calculation Basis:

Standard	ISO 14040:2006 and 14044:2006
LCA Software	GaBi ts [Version 10.6.2.9]
Impact Assessment Method	Life cycle impact assessment classification and characterization factors according to
	the Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report for
	Global warming Potential (GWP), with 100 years of time horizon for kg CO2
	equivalent (carbon footprint)
Database	GaBi 2022 LCI and ecoinvent 3.7
System Boundary	The system boundaries include:
	 Manufacturing (extraction of raw materials, upstream material preparation,
	electronic component manufacturing, subassembly manufacturing and final
	assembly of product)
	Distribution to customer located in USA
	Five years of product use
	 End-of-life treatment according to waste management statistics in the
	customer country
Validation of Study	Validated through 3rd party critical review (EarthShift Global)

 $^{^{1}}$ One terabyte (TB) is equal to one trillion bytes. Actual user capacity may be less due to operating environment.

²*Absolute climate change impact values & contribution details for each phase will be available upon request

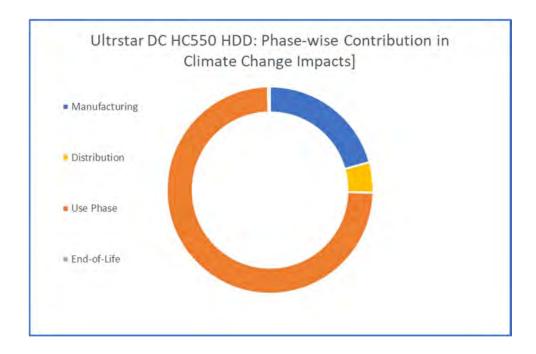
Components Used:



The pie chart shows weight contribution of various components of the HDD. Motor base assembly (MBA) contributes 40% of the weight, followed by Media [18%], VCMA [16%], and Cover assembly [15%]. The remaining 11 % of the weight is from other components

Breakdown of Carbon Footprint by Life Cycle Stages²:

[71%] of climate change impacts are from Use phase, followed by Manufacturing phase [24%], Distribution phase [4.5%] and End-of-Life phase [<1%]. Use phase impacts are primarily attributable to energy consumed by the product during its useful life. Manufacturing impacts are driven by resource consumption during the product assembly & sub-assembly processes, distribution phase impacts are focused on transportation of the product from the manufacturing location to the customer location.



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