

CASE STUDY

Prologis Dutra II Building 100

LEEDv4 BD+C: Core and Shell



OPERATIONAL CARBON
FOOTPRINT REDUCTION:
440,808 kg CO₂e



190,871 SF WAREHOUSE
2,000 SF OFFICE
Rio de Janeiro, Brazil



Dutra II B100 Exterior View



259,700 Gallons

of Annual Indoor Water Savings

Through low-water use efficient plumbing fixtures, compared against the LEED baseline.



100% LED Lights

Energy and cost-efficient LED lights used for interior and site lighting, reducing mercury extraction, usage and exposure.



192,500 Gallons

of Annual Outdoor Water Savings

Compared against LEED baseline standards through native and adaptive landscaping and no irrigation



66% Energy Use Reduction

Achieved via efficient lighting, HVAC, and enclosure design compared to similar warehouse buildings based on ASHRAE 90.1-2010.



8% Electric Vehicle Chargers

Site uses smart grid-connected EV chargers for optimized charging times and demand charges.



10 Products with EPDs Installed

Specifically selected products with available Environmental Product Declarations (EPDs) for transparent material life cycle impacts.

KEY FEATURES

- Skylights provide significant daylight penetration by illuminating 90% of all regularly occupied areas.
- Project prioritizes reducing local impacts through Regional Priority credits for Bicycle Facilities and Access to Quality Transit.

PROJECT TEAM

Owner/Developer: Prologis
Architect: TM2
Contractor: Ribeiro Caram
Civil: G Infra

Mechanical: Laeromec
Electrical: PQR MA2
Plumbing: Usina
Landscape: Agrovias

NOTABLE LEED THRESHOLDS

HEADLINE	INTENT	STRATEGY
Location and Transportation: Green Vehicles	By promoting alternatives to conventionally fueled automobiles the project helps reduce pollution and helping reduce pollution and fossil fuel dependence.	8.5% of the total parking capacity is equipped with EV chargers, supporting the transition to cleaner transportation.
Sustainable Sites: Heat Island Reduction	The highly reflective roof reduces solar heat gain on-site, helping maintain cooler temperatures both indoors and in surrounding outdoor areas, while minimizing effects on local microclimates.	A white metal roof and 100% concrete hardscape were implemented to help mitigate the urban heat island effect.
Water Efficiency: Outdoor Water Use Reduction	Thoughtful landscape design using native, adapted, and drought-tolerant plants can dramatically reduce or eliminate the need for irrigation while better integrating the building into its environment.	The project uses native and adaptive plants for landscaping. Due to the site's climate, no permanent irrigation system was needed, achieving 100% water savings compared to LEED baseline.
Energy and Atmosphere: Advanced Energy Metering	By tracking both building-level and system-level energy use, the project supports active energy management and identify opportunities for additional savings.	The building is equipped with advanced energy meters that provide real-time, remote monitoring of energy use. This enables smarter decision-making, improved energy management, and continuous performance optimization.
Materials and Resources: Sourcing of Raw Materials	Selecting products verified to have been extracted or sourced responsibly encourages the use of materials with transparent life cycle information and reduced environmental, economic, and social impacts.	Approximately 37.3% of the total permanently installed materials (by cost) include recycled content. This includes cement mixes, roofing, and structural steel.
Indoor Environmental Quality: Daylight	Daylight plays a key role in occupant experience, improving visual comfort and reducing reliance on artificial lighting, which lowers energy consumption.	Skylights cover 4.3% of the roof area allow natural daylight to reach 90% of the interior spaces.
Innovation: Low Mercury Lighting	Mercury is a toxic chemical and neurotoxin that breaks down slowly in the environment. In buildings, mercury is commonly released through breakage of lamps containing it.	100% LED lighting was selected for this project, eliminating the risk of mercury contamination from lighting systems.