

LITE Index Calculation Methodology

Introduction

LITE Index refers to numbers showing the energy (in terms of lighting hours for a 11W bulb) and water (in US gallon) an article will save to make one pair of shoes (2.5 sqft of leather), comparing to the latest LWG Audited Score (50%)¹.

Deriving quantity of water consumed for producing a unit of leather

Quantity of water consumed for producing a unit of leather is the sum of the following:

- A. Water consumed for retanning is calculated based on the retanning formula of the article.
- B. Water is also consumed for Wet Blue wetting back, samming, setting out, cooling of vacuum dryer, product finishing, product development, at lavatories, etc. This part of water consumption is derived based on water meter reading, and is shared equally per every unit of product produced.

Deriving quantity of energy consumed for producing a unit of leather

Quantity of energy consumed for producing a unit of leather is the sum of the following:

- A. Electricity consumed by machines throughout the production processes, which is derived according to the power rating of the machines used and the time required to process an article
- B. Electricity consumed at the wastewater treatment plant per unit wastewater generated by producing a unit of leather is derived by electricity and water meter reading at the wastewater treatment plant
- C. Energy consumed for heating up the water for retanning process. This is derived based on the retanning formula of each article
- D. Energy consumed for heating up the water for retanning drum for product development

* Note: 1. Since September 2023, our LITE index has been measuring the energy and water savings per square foot of leather when compared to the Bronze Rate (65%) instead of the LWG Pass / Audited Score before 2023.

purpose. This is recorded by water meter and is shared equally per every unit of product produced. Water is assumed to be heated up for 50 °C

- E. Energy consumed for spraying and roller-coating of unit product. This is derived from natural gas meter readings for the spraying and roller-coating machines
- F. Energy consumed for heating up water for vacuum dryer for unit product. This is derived from water meter readings of the vacuum dryer. Water is assumed to be heated up for 50°C
- G. Energy consumed at toggling progress for unit product. This is derived from natural gas meter readings of the toggling machines
- H. Energy consumed for other purposes within the factory, which is assumed to be 20% of the energy consumed by all machines (A) in the tannery

Deriving the production volume

The area of each piece of leather processed is measured by calibrated machines during the production process. The readings are electronically recorded at the instance of measurement.

Limitation

LITE Index is only applicable to articles solely produced from ISA's China facility.

Review of the methodology

The methodology is reviewed once every two years by the management team of ISA with support from the independent environmental consultancy².

Regarding the benchmark figure used

The benchmark figure we used for deriving the LITE Index is the energy consumed and water

* Note: 2. The audit year of 2021 was selected because it was the last "normal" year of production, and it was before the impact of the COVID-19 pandemic had a significant effect on production levels.



consumed for producing a unit area of leather by a “tanned to finished” tannery, refers to category D, which will get 50 points for the respective modules in an LWG audit. The number is available from the Leather Working Group’s latest Environmental Audit Protocol.

We believe that this is a fair benchmark. We believe that this benchmark figure is applicable to article of any thickness.