

# Report on Environmental Impact Reduction Efforts

FALL 2023

## Introduction

Egal sells disposable menstrual pads that are manufactured in roll form so they can be dispensed in every restroom stall. The product corrects a glaring inequity in public restrooms where only half of the population has all of its needs met, while the other half that menstruates does not. By providing free period products to their employees and patrons, an institution recognizes that periods are just a natural and regular occurrence that require a hygienic solution in their restrooms, and by adopting Egal Pads, they will be using a dignified, convenient and cost-effective method.

Though Egal fulfills an important social need, we recognize that as a single-use disposable product, it is also important that we make every effort to minimize our impact on the environment. This white paper describes a number of our achievements with our products and packaging, and details our plans for the future.



## 1 Pad Packaging Reduction

Historically, public hygienic needs for periods have been met with vending machines that dispense one product at a time. Each menstrual pad requires a box so it works in the machine, and is sealed for cleanliness. These "#4" boxes weigh approximately **9.2 grams** each.

### Packaging Weight of Typical Boxed Pad



**9.2 g**  
per pad

Because Egal is sold and dispensed in bulk using the familiar toilet paper roll format, there is no need for a box. A single Egal pad only requires **1.3 grams** of packaging in the form of the outer wrapper.

## Egal = Materials Savings

That is an **86% reduction** in packaging weight. For every million pads sold, **Egal saves 8.7 tons of packaging.** (Another vended solution uses a 7.1 gram cardboard envelope; Egal would be an **81% reduction.**)

**86%**

LESS PACKAGING

**8.7 tons**

SAVED PER MILLION PADS



**1.3 g**  
per pad

## Egal = Transportation Weight Savings

The total weight including packaging of a Maxi style pad typically sold in a vending machine is **17.6 grams**—more than half the weight is packaging—while the total weight including wrapper of an Egal pad is **5.6 grams**. **That is 68% lighter overall which saves on fuel transportation costs.**

## Egal = Transportation/Storage Volume Savings

A case of 480 Egal pads is 1,261 cubic inches. Each case of 250 #4 boxes is 3,751 cubic inches, so 480 #4 boxes require 7,200 cubic inches of packaging. **That means Egal pads save 82% on transportation volume,** so fewer trucks are needed to deliver our product. This also saves on warehousing space.

## Discussion

It is predicted that in within five years, as many as 50 million pads may be dispensed in public restrooms annually. **Vended solutions would require over 400 tons of packaging to deliver to this market.**

This is a significant amount of material. Egal believes that the use of extra packaging for pads in publicly vended machines will not be sustainable or environmentally responsible in the future.

## 2 Paper Wrapper

The original version of Egal pads use a polyethylene film wrapper. This is standard packaging for the vast majority of consumer menstrual pads sold worldwide. The original is our model 1101.

Egal is now adopting the use of a *paper* wrapper in our new model 2102. Paper was pioneered in India for use in locally manufactured and sold pads.

Our unique roll format allows us to utilize paper without the packing difficulties that a stiff folded store-bought pad would present. This silicone-backed paper has many advantages:

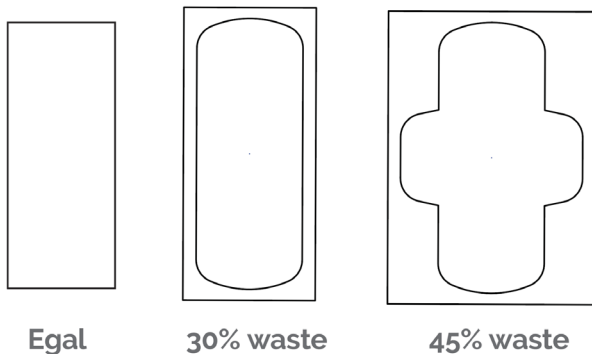
- It is made from paper pulp, a more sustainable material than polyethylene.
- It acts as the outer wrapper *and* the release paper, allowing us to eliminate a component, saving 7% on material use.
- The paper is stiffer, which allows us to increase our rolling speed.
- The paper holds its shape better, so the roll looks more like toilet paper.



### 3 Waste Reduction

Every die cut pad results in 30-45% wasted outer material that is thrown away. Egal observed that wingless pads are mostly rectangular, and the rounded ends are more aesthetic than functional. By eliminating the die-cut pattern, the Egal 2102 pad has also eliminated all wasted material without sacrificing comfort.

*Egal Pads are Engineered to Reduce Surplus Material*

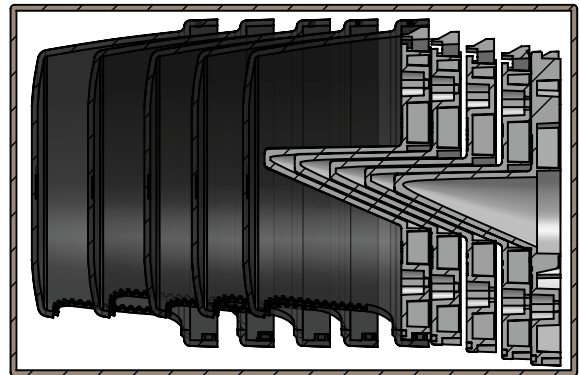


### 4 Nesting of Dispensers

Though Egal pads can be mounted in standard toilet paper dispensers, we have designed and manufactured a dispenser specific to our roll. It uses simple friction to govern the removal of pads so they do not fly out.



Egal recognized that many standard dispensers have a huge empty space inside that takes up most of shipping volume. In an industry first, the two parts of the Egal dispenser were carefully designed to nest inside each other. This allows five nested dispensers to be shipped within the volume of two.



This results in a **60% reduction** in packaging materials, fuel and transportation costs, and warehousing space.

The stacking approach was also applied to our tampon holder, which can stack 5 at a time in one box.

### 5 Eliminate Plastic in Packaging

Our manufacturer was using plastic bags to cover and protect our dispensers during shipping. We convinced them to use paper instead. Now we have eliminated all plastic in our dispenser packaging, and we have not sacrificed any quality in the the product.



### Future Projects

#### *Eco-friendly Pad*

Egal is rising to the challenge and exploring the use of all naturally-sourced materials so we can eliminate plastics in our pads.

#### *Flushable Pad*

We understand that clogged drains are a large headache for facilities managers. Egal is working on special designs that could be flushed.