nikeredesign

BioBall / Pack

group.13
kababulut.lepkowski.park.stecyk.thornton
brand.palleschi.park.pennell.waclawski

RIT School of Design
matychak

Traditional soccer ball manufacturing, packaging, and distribution produces potentially harmful chemicals and uses excessive space and materials.

We can design a soccer ball that uses natural or less harmful materials and chemicals and is shipped deflated in a flat interlocking package. The negative impact on the environment will be reduced and we can cut down distribution costs.

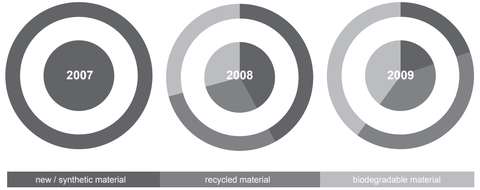
Comparison: Traditional vs. Hemp Ball

The hemp and biodegradable plastic outer covering replace the synthetic leather and rubber that produce more waste and use more energy in a conventional design.

By extruding strips of recycled tire rubber to form the air bladder, we are eliminating the need to expend resources manufacturing new material as well as creating a cost savings.[1]

The hemp and plastic covering (Polylactide acid) are separable from the rubber bladder and both are biodegradable in a short time (~ 7 weeks).[2] The materials in a traditional ball are permanently joined and will not degrade for many years.

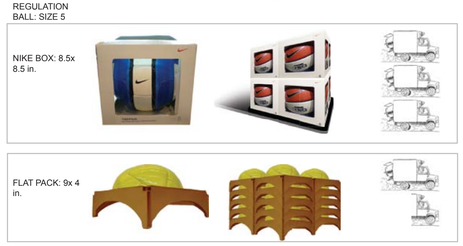
Projected Material Usage:



Manufacturing & Distribution: Hemp Ball & Flat Packaging

Nike currently has an established factory base and distribution network in Europe employing almost 30,000 workers.[3] Presently, these factories are tooled for footwear production. However, retooling costs would be subsantially less than new investment given that European nations already possess the required technology and resources. Romania, Turkey, and Hungary are among the nations with established hemp industries and established Nike facilities.[4]

The innovative biodegradable flat packaging will merge well with Nike's established distribution system, reducing costs. Packaging is easily produced in parallel due to its simplified process (unbleached card stock, simple inks, and folding.)



Process: Group 1

The purpose of our designed package is to reduce overall material usage. Our initial concepts also show that our idea included stacability to reduce space during distribution.

We explored different shapes and materials to ultimately decide that there needs to be a certain amount of material for security and strength reasons. However, we decided that using a single material and using non-adhesive methods for construction would make our new flat package recycleable and less expensive to make.