

Rollpac: Design Rationale

Rollpac, our fiber-based packaging, is an easy-to-reproduce design that can contain any number of small products, fragile or otherwise. The packaging can be rolled rather than folded, which lends an element of protection to the product within. Rollpac's moldable nature allows a wide variety of items to be shipped sustainably.

Most protective packing materials for fragile objects are made of foam or plastic. These materials have sustainable alternatives, but fiber-based materials are even more sustainable. To design a package to adequately protect its contents without the help of additional packing materials, we played with the shape and flexibility of the package itself.

The prototype was designed by cutting triangles into one face of the material to increase flexibility. The triangle is often used in structural design. It is known to be the strongest shape, so using a repetitive pattern of triangular perforation added a level of support to the material. The base of the smallest package unit is made up of five triangles for a circumference of 10 inches, so the roll of packaging can be utilized in multiples of five. The geometric patterns incorporated into the structural aspects of our design also inspired the layout of our branding elements.

Rollpac can be scaled for a variety of small-item shipping purposes as well as customized to the business's brand identity. We are pleased to have produced a simple roll of fiber-based cardboard with minimal materials required.