

Lenovo's Environmentally Preferable Paper Sourcing Practices Whitepaper

February 1, 2022



Summary:

Lenovo recognizes the importance of our global forest resources in providing habitats for wildlife, protection for watersheds, valuable resources for commerce, and mitigation for the impacts of climate change. We understand the impact that our purchases have on forest resources and are committed to responsible practices and purchasing in this area. Lenovo's suppliers must comply with applicable laws, including compliance with laws related to water, waste, and emissions. Lenovo also prohibits suppliers from using forest products derived from illegal sources.

Our Commitments and Practices:

Source reduction:

Lenovo's approach to responsible paper sourcing starts at the design phase. Our packaging engineers evaluate packaging designs to minimize the quantity of materials used while maintaining the required performance characteristics. We have driven down the packaging size and weight across all product categories. As a result, we are using an average of 5% less materials by weight per package on mainstream models – this after already making significant reductions in previous years. In addition to using less materials, these efforts have made our packaging lighter which allows us to fit more packages on a pallet – in many cases allowing us to increase the pallet density by 10~20%.

We also have a strong focus on materials reduction for our user manuals. This has allowed us to eliminate the use of the multi-page user manuals shipped with many of our products by placing much of the information online.

Reusable packaging:

Lenovo offers reusable bulk packaging as an option for our notebook products. Also, we have instituted the use of reusable packaging for intra-company shipments in our China desktop manufacturing operations.

Use of recycled materials:

Lenovo places a preference on 100% recycled content materials. Lenovo requires all corrugated container packaging supplied to be at least 50% or greater post-consumer fiber content and requires suppliers to use the maximum available post-consumer material without compromising needed performance. Lenovo also requires a minimum of 45% post-consumer recycled content fiber and 100% recovered fiber in its paperboard packaging. In addition, Lenovo requires the use of [Forest Stewardship Council, \(FSC\)](#), certified fibers where virgin fibers are used, and requires its use in Kraft liners for all Think products and select consumer notebooks.

Plastic-free packaging:

Lenovo aims to eliminate plastic materials from product packaging. The ThinkPad X1 family and Z series are pioneers in this endeavor. This new packaging is made of 100% renewable and compostable fiber-based materials. Lenovo will also eliminate 140 tons of single-use plastic in 2022 by utilizing plastic-free packaging technology. We will expand the plastic-free packaging technology gradually to all ThinkPad and select Consumer and

Owners: Royal Bai, Senior Manager, Worldwide Packaging
Mary Jacques, SESM & Director, Global Environmental Affairs

Small to Medium Business (SMB) products by 2025. Making packaging greener, lighter, and more efficient is our goal.

Recycling of End-of-Life Materials:

Lenovo encourages the recycling of products and packaging at the end of their useful life and provides recycling solutions in many of the geographies where we do business.

Sustainable Sourcing

Lenovo has conducted a comprehensive survey of our suppliers to determine the source of pulp and virgin fibers and to develop a baseline for the use of FSC and recycled content in our packaging and publications. As a result of this survey, in FY13/14 Lenovo transitioned all Think products (notebooks, desktops, servers, and workstations) to 100% FSC certified Kraft liners and has made this a requirement in Packaging Specification 45J5388, "Lenovo OEM/ODM Packaging Requirements." The Kraft liner is the only packaging component made of 100% virgin wood fiber and is made from this material in order to achieve desired performance and appearance characteristics. All other packaging components for Think products contain recycled content and must meet the following requirements:

- Corrugated container (box) packaging must contain at least 50% post-consumer fiber and should exceed that to the maximum available post-consumer material where adequate supplies exist and where it does not impact performance
- Paperboard packaging is to contain a minimum of 45% post-consumer fiber and 100% recovered fiber. FSC certified paperboard is mandatorily required

Lenovo is also using rapidly renewable and compostable packaging in the form of bamboo fiber packaging. The use of bamboo fiber in select products marked the launch of a new era of eco-friendly packaging offerings for Lenovo while also enhancing the customer experience. Bamboo, one of the fastest growing plants in the world, allows this innovative fiber packaging technology while also promoting healthy soil and fewer resources used in its growth.

Lenovo started to introduce Bamboo fiber cushions to ThinkPad X280 starting in 2018 and then expanded to X390/X13/X12 gradually. In 2022, the brand-new bamboo gift box was introduced to ThinkPad premium models, (X1 family & Z series) as a key enabler of plastic-free packaging technology. Lenovo continues to evaluate expanding the use of compostable materials on additional product lines.

Continual Improvement: Consumer Products

Lenovo is working to drive improvements in the size and volume of packaging for select consumer products in addition to our Think branded commercial products. Due to unique performance and appearance requirements for consumer products – many of which are sold in retail settings – reductions in size for these types of product packaging can be challenging.