Latex Foam Comparison & Process Explanation

Latexco U.S.

Topper Comparison

The Talalay process and the Latexco Process are detailed on the backside of this page.

General:
Natural latex comes from the rubber tree in Southeast Asia. Synthetic latex is manmade rubber, not polyurethane. Most latex foam is a blend of both. Natural latex costs slightly more per pound. Natural vs. synthetic vs. a blend is more marketing than performance. 85% of all latex foam in the bedding industry is a blend of natural and synthetic latex.

Fillers are cheap non-latex additives that will cause softening and body impressions. They offer a lower cost formula and speed manufacturing time resulting in lower quality and returns. Latexco will NEVER add fillers to its formulas whereas other US Latex manufacturers add up to 25% fillers.

Latexco Production Process

- Manufactured to the desired size and thickness - NO fabrication!
- No glue seams on all sizes, including Cal King.
- Consistent feel from side to side & head to toe due to the continuous pouring. Identical material from order to order.
- High Density = Quality & Durability: 3.75 lbs. per cubic foot. Normally 30-35% higher than Talalay at the same ILD.
- Gauge - Poured to the desired thickness = consistency at ANY thickness. No saw required.
- Zoning: 3, 5 or 7 zones are readily available for any size and thickness.
- Also available in rolls.
- Available as a composite with other materials - NO lamination required. Patented process.
- Over 50% Natural content = improved resiliency!
- Fillers: NEVER used by Latexco. High quality standards prohibit their use.

Talalay Production Process

- Fabricated from TXL or Queen molds - Adds a variable to the process.
- One glue seam on Kings & Queens - often 2 seams.
- Consistency depends on matching cores of identical compressions & the volume of glue applied.
- Low Density = Quality & Durability: Less than 3 lbs. per cubic foot. Normally 25-40% lower than Latexco at the same ILD.
- Gauge - Sliced from molded cores = limited to optimum yield thickness. Slicing is a fabrication variable.
- Zoning: limited availability due to mold capacity.
- Rolls are never available.
- If combined with other products, must be laminated manually with glue.
- 20-30% Natural content is typical = less resiliency.
- Fillers: Has been tested at 18-25% in content. Lowers the manufacturing cost, and will cause softening and body impressions.
The Talalay production process, named after its inventor, a Russian engineer, produces molded pieces of latex foam rubber. A measured amount of foamed latex is poured into a large stand-alone mold. The mold is only partially filled. The lid of the mold is sealed and the latex is expanded by vacuum to fill the mold and is frozen. At this point, carbon dioxide gas is passed through the latex causing it to gel. The temperature is raised to 220ºF which vulcanizes the latex. The Talalay production process does not produce toppers or rolls and has a limited mold size.

Although Talalay latex has a nice structure and a plush feel to it, it also has many disadvantages... All Talalay products are fabricated from molded cores. This brings along various problems such as the need to accurately saw cut toppers, lack of zoning, different density and comfort between the various toppers cut out of 1 core or laminated cores, there is a need to laminate two twin cores of identical comfort to create a king size, etc. Rolls are never possible. High energy consumption negatively impacts our environment and the Talalay Process carbon footprint. Because of the limited number of Talalay producers, mattress makers need to be aware of the risk of limited supply. Talalay latex accounts for less than 10% of the latex components utilized in the bedding industry.

The Latexco production process (www.latexco.com) is a much more eco- and economically friendly way to produce or manufacture latex foam mattress and pillow cores and toppers or rolls of excellent quality. The manufacture of toppers and rolls requires less fabrication with fewer variables and more consistency (no seams, very consistent quality), compared to the Talalay production process.

The compound, a mixture of natural and / or synthetic latex is foamed. Gelling, the solidifying of the foam is achieved by adding the gelling agent into the mixer. The foam then is poured on the stainless steel conveyor belt (of the continuous line) and passes on into the vulcanization oven OR the foam is poured into molds that close and enter the vulcanization oven. Vulcanization is the chemical reaction that gives the latex its final fixed and elastic shape. After vulcanization, the molds are opened and the foam rubber cores are removed and passed on to the washing station. The latex topper roll comes out of the oven and also passes the washing station. The washing removes from the foam rubber the natural soaps and the products that have not reacted, in order to ensure that elasticity is retained and to counter ageing. The moisture remaining after washing and pressing is removed in a drying tunnel, using hot air at 240°C.

Latexco always uses a significant part of natural latex in its blends. Natural latex not only enhances the elasticity of the final product, its use is also beneficial to the environment. Natural latex, the juice of the tropical rubber tree (Hevea Brasiliensis), is a natural and inexhaustible raw material. The rubber trees neutralize over 90 million tons of carbon dioxide (CO2) per year. A forest with rubber trees has the same air purifying characteristics as a tropical rain forest. Latexco exclusively uses natural latex derived from ISO certified plantations (ISO 14001) that meet stringent quality standards.