Why Do TV Packaging Boxes Smell So Bad?

Understanding the Hidden Causes Behind Electronics Packaging Odors

By Eric Faber, Founder & CEO of Packaging Resources June 2025

Consumers often describe a very specific smell when unboxing a new television: part cardboard, part chemical, part "mysterious warehouse." As packaging consultants, we know this odor isn't just an annoyance—it's a symptom of how modern electronics packaging is designed, manufactured, and transported.

Here's a comprehensive look at **why TV packaging often smells unpleasant**, what causes these odors at the materials level, and what brands can do to improve the consumer experience.

1. High Recycled Content Corrugate Carries More Odor

Most flat-screen TVs use **large corrugated boxes with high recycled fiber content**. While sustainable, these materials often retain residual odors from the recycling stream, including:

- Old inks and coatings
- Adhesives from prior packaging
- Organic residues from mixed waste
- Musty smells from wet corrugating operations

The more recycled fiber used, the greater the chance the corrugate will have a noticeable "paper mill" or "damp cardboard" odor.

2. VOCs From Inks, Adhesives, and Coatings

Even seemingly simple TV boxes usually involve:

- Flexographic printing
- Water-based barrier coatings
- Anti-scuff varnishes
- High-tack adhesives

These materials emit **volatile organic compounds (VOCs)**—a primary contributor to the chemical or "plastic-y" smell consumers notice when opening the box. If the board is not allowed to cure fully before being converted, the odor becomes even stronger.

3. Foam Components Are Major Contributors

Electronics packaging relies heavily on **EPS (expanded polystyrene)** or **EPE foam** end caps and cushions. These materials can emit:

- **Styrene monomer**, known for its sharp, sweet, chemical odor
- **Residual blowing agents** trapped during manufacturing
- VOCs that intensify when heated during shipping or storage

Foam is often the number-one source of that distinctive "new TV smell."

4. Long-Duration Sea Containers Trap and Amplify Odors

Most TVs sold in the U.S. or Europe spend **4–6 weeks inside sealed ocean containers** during transit from Asia. Inside this environment:

- High heat accelerates VOC release
- High humidity permeates corrugate
- Diesel, wood pallet, and port odors can migrate into packaging
- All materials absorb and then hold these odors until opened

This is why TVs shipped in summer months often smell stronger: the container became an oven.

5. Manufacturing Residues in Electronics Facilities

Packaging used in electronics plants may absorb background odors from:

- Plastic injection molding units
- PCB soldering operations
- Flux and resin fumes
- Lubricants, oils, and cleaning agents

If corrugate or foam is stored near production lines, it will take on these smells—especially porous materials like recycled board.

6. Anti-Mold Treatments Add Their Own Odor

To prevent mold growth during ocean transit, many Asian suppliers apply anti-mold powders or sprays to:

- Corrugated boxes
- Pallets
- Shipping cartons

Common agents (such as OBPA or isothiazolinones) carry a noticeable **chemical or medicinal smell** that lingers inside the box until the consumer opens it.

7. Insufficient Curing Time Leads to "Trapped" Smell

Ideally, corrugate, foam, and printed components should **cure for several days or weeks** to off-gas properly. But production schedules are tight, and materials often go straight from manufacturing to the packing line.

Under-cured adhesives, inks, foam, and coatings continue to off-gas *inside* the sealed master carton—creating a more intense odor once the box is finally opened.

Is It Harmful?

Generally, no.
These odors typically come from low-level VOCs that dissipate quickly and fall well below regulatory thresholds.

But here's the important part for brands: **smell influences perceived quality**. A foul box can subconsciously signal "cheap," "dirty," or "low-end" even when the product itself is excellent.

How Brands Can Reduce Odor (and Improve Consumer Perception)

At Packaging Resources, we regularly help OEMs improve their packaging odor profile through a combination of design, materials selection, and supplier process audits. Effective solutions include:

✓ Choose Higher-Quality Corrugate

- Lower recycled content
- Cleaner fiber sources
- Odor-controlled board from premium mills

✓ Specify Low-Odor Foam Formulations

Modern EPS/EPE formulations can significantly reduce styrene off-gassing.

✓ Add Packaging Curing Time

Even 24–72 hours of off-gassing post-printing can dramatically reduce VOC presence.

✓ Improve Container Ventilation Procedures

Small ventilation adjustments in ocean shipping can reduce trapped odors.

✓ Avoid Cheap Anti-Mold Chemicals

Use alternatives with neutral smell profiles or improved micro-encapsulation.

✓ Adopt Odor-Scavenging Liners or Inserts

Specialized kraft liners or charcoal-infused materials can neutralize VOCs.

These improvements don't just solve the smell issue—they strengthen the brand, improve unboxing experience, and reduce returns from odor-sensitive customers.

Final Thoughts

TV packaging smells bad for a simple reason: **it's a mix of recycled paper, foam off-gassing, adhesives, coatings, anti-mold agents, and container conditions—sealed together for weeks at a time.**

But the good news is that the problem is solvable. With the right materials, QA processes, and supplier oversight, brands can dramatically reduce odor and improve customer perception.