



CASE STUDY

Avoiding Launch Delays: How Americhem Enabled Fast, Flexible Material Support for a New Surgical Headset

Customer

Global Surgical Device Manufacturer

End Use

Battery housing for a redesigned surgical mask PPE headset.

Customer Challenge

The customer was preparing to launch a redesigned surgical mask headset that charged faster, ran longer, and weighed less. These enhancements were critical for clinical comfort and performance during long surgical procedures. To meet their product launch timeline, they needed a battery housing made from two healthcare-grade resins that had to align in both performance and appearance. The materials had to meet specific requirements for high flow, impact strength, gloss, and color consistency across dissimilar polymers. The mold required small-lot orders to support sampling, tooling validation, and ramp-up – volumes that most suppliers could not accommodate within the schedule.

Americhem Solution

Americhem provided two targeted materials compounded material solutions that addressed the customer's technical and visual performance needs. Two custom color-matched formulations were developed:

- WT10071 white, based on Lexan HF 1110 (polycarbonate)
- GY10113 gray, based on Lustran 348 (ABS)

These resins were selected for their proven performance in medical environments. Americhem ensured the materials met processing, aesthetic, and compliance standards. Deliveries ranged from 220 to 550 pounds per batch and were timed to support the customer's development milestones, including prototype builds, validation runs, and scale-up to production.

Value Proposition

Americhem offered a combination of speed, flexibility, and expertise that others could not. The customer gained a partner with deep knowledge of medical-grade resins and color matching across polymer types. Americhem enabled:

- Small-lot production that supported agile development
- Precise color harmony between different resin chemistries
- Lot-to-lot consistency that reduced downstream risk
- Reliable delivery schedules that aligned with production needs

This approach helped the customer reduce risk, maintain momentum, and stay focused on program execution.

Customer Success Story

The customer launched their surgical mask headset on schedule. They moved through validation and production with confidence, backed by a material partner that matched their urgency and quality standards. With consistent material performance and accurate color alignment across all parts, the final product met both regulatory and visual expectations. Multiple production runs were completed without delay, and Americhem continues to supply material for ongoing demand, reinforcing its role as a reliable partner in high-stakes medical manufacturing.

Fast Facts

End Application

Battery housing for surgical PPE headset

Customer Type

Global Surgical device manufacturer

Materials used

WT10071 (PC), GY10113 (ABS)

Performance Requirements

High flow, impact resistances, gloss finish

Color Standards

Matched across dissimilar materials

Batch Sizes Delivered

220-550 lbs.

Americhem Capabilities

Small-lot flexibility, color harmony, fast delivery

Results

On-time launch, consistent material performance

