



**LOCTITE®**

# **ULTRA-PERFORMANCE LOCTITE® INSTANT ADHESIVE IMPROVES QUALITY & RELIABILITY OF TRUE WIRELESS STEREO HEADSETS**

LOCTITE® **402™** INSTANT COMPONENT BONDING SOLUTION

LOCTITE® **SF 770™** PRIMER



Henkel Adhesive Technologies



## Customer Challenge

A global manufacturer of a True Wireless Stereo (TWS) headset was seeing escalating complaints due to field failures. When the headsets were drop tested to simulate actual use by consumers, approximately 2% would come apart. The manufacturer was impacted with the cost of rework and the potential impact on the manufacturer's market image. The primary assembly consisted of the outer earbud case and the magnet within the earbuds. A combination of substrates were being assembled and included aluminum, ABS, polypropylene and ferrite Magnet. A fast assembly process was required due to the high production requirements and testing to simulate real-life usage was conducted up to 125°C. The bonded assembly must pass a six foot drop test.

## Henkel Solution

Team LOCTITE® recommended LOCTITE® 402 for the application. With its maximum heat-aging resistance temperature of 135°C, it satisfied the 125°C simulation testing. The substrate versatility ensured high bond strengths to the range of materials used in the headset assembly (metal, plastic and ferrite). When used in conjunction with LOCTITE® SF 770 Primer for Instant Adhesives, it achieved high bond strength even on hard-to-bond polypropylene. The inherent durability of the cured adhesive ensured the components remained bonded even if dropped. The company reduced the overall cost of the product with a rework reduction from 2% to 0%.

## Benefits

- Improves reliability with higher temperature resistance and passing drop test results
- Reduces overall cost with rework reduction from 2% to 0%
- Increases productivity with rapid fixture speed
- Improves worker safety with non-HQ Instant Adhesive formula
- Maintains strong brand and market position

