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Attached to this email is a low resolution version of the photograph that is included in the press kit for this product.

A high resolution version of this image and files with the body text of this release in Word, HTML and text formats are available at <https://www.masterbond.com/newsrelease/steris>.

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## FOR IMMEDIATE RELEASE

**Master Bond’s Epoxy Compatibility with STERIS’s Vaporized Hydrogen Peroxide Sterilization Process**

Master Bond and STERIS collaborated in research to determine the compatibility of Master Bond’s specialty epoxies with Vaporized Hydrogen Peroxide (VHPTM) using V-PRO® s2 Low Temperature Sterilization System. This study was recently published in a peer-reviewed journal Polymer-Plastics Technology and Materials.

As medical devices have evolved through technological advancements, they have become more complex in both their design and materials of construction. Medical grade biocompatible epoxies are widely used in reusable medical devices. Choosing an epoxy that maintains its performance characteristics when subjected to repeated sterilization throughout the reusable medical device’s lifespan is a known challenge for medical device manufacturers. This study evaluated the material compatibility of seven cured two part and one part epoxies used in medical devices following exposure to 100 cycles in a low temperature vaporized hydrogen peroxide sterilizer.

Six of the seven epoxies tested were found to be compatible with vaporized hydrogen peroxide sterilization based on qualitative, hardness and weight measurements conducted post exposure to 100 VHP cycles. The epoxies deemed to be compatible displayed no visual signs of physical defects, minimal reduction in hardness (≤2%) and total weight gain (≤2.9%). This study highlights the importance of conducting material compatibility studies, and continued collaborations (among medical device manufacturers, sterilizer manufacturers and epoxy manufacturers) during the early stages of medical device development to ensure a successful reusable medical device that will withstand repeated sterilization

**Key Findings from the Study about Master Bond Medical Adhesive Systems**

The Master Bond EP42HT-2Med, EP42HT-4AOMed Black, EP62-1HTMed, EP41S-5Med, EP4CL-80Med and UV10TKMed epoxies are compatible with low temperature vaporized hydrogen peroxide, as they maintained their surface texture, exhibited less than 2% change in hardness, and displayed less than a 2.5% weight gain post exposure to 100 VHP cycles.

To read the experiment and results in its entirety please go to <https://www.tandfonline.com/doi/full/10.1080/25740881.2024.2376209>

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Note to Editors:

Check out new videos on our YouTube channel: <https://www.youtube.com/user/MasterBondVideo>

You can embed any of our videos on your website.

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