



Medical Market Case History

Learn how GW Engineers proposed the product design for the DERMABOND® ProPen with an eye toward molding and assembly.

When the developer of the first FDA-approved surgical adhesive needed to manufacture a convenient new dispensing system and they needed it fast, they came to GW Plastics.

Closure Medical, Inc. had developed DERMABOND surgical adhesive, which was a success, but the packaging was not very user friendly. The adhesive was located in a glass vial contained within the outer package. The vial had to be manually broken to release the product to the application wick and there was little control of the process.

The new DERMABOND ProPen being developed to replace the original glass vial and wick assembly was "just what the doctor ordered," but it was not designed for manufacturability. That's where GW came in.

GW Engineers reviewed the proposed product design with an eye towards molding and assembly of the three-piece system molded in ABS and PP.



The pen sides were designed to support the vial of adhesive, while allowing assembly with a precise interference fit. A rotational collar was molded with an internal cam action that releases the adhesive and controls a precise flow to the tip as the bulb on the side is depressed.



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The three hot manifold, eight cavity molds were designed with replaceable inserts for product identification and OEM branding. Two versions, the ProPen and ProPen XL, are being manufactured in the same tooling.

Timing was critical due to the customer's upcoming new product introduction, so the project was fast-tracked. The device had to be redesigned, molds made and certified and completed units ready for delivery in just 10 weeks. And GW Plastics made it happen.



Since its introduction, the Closure Medical DERMABOND ProPen has won the Medical Design Excellence Award given by the Medical Device & Diagnostic Industry.

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