

PROVEN SOLUTION LONG TERM STORAGE & PRESEVATION M16 RIFLE BAG FEATURING A RE-USEABLE CLOSURE & SERIAL NO. WINDOW (P/N HPV-81503-M-16)



Application

The U.S. Marine Corps solicited the development of a flexible packaging system that would replace their existing method of preservation packaging for anti-corrosion protection of refurbished M-16 Rifles. The new system needed to increase packaging speed and provide equivalent or superior corrosion inhibiting properties to the existing package (weapon wrapped in MIL-PRF-3420G paper and heat sealed inside a MIL-B-117, TY I, CL E, ST 1 barrier bag; MIL-PRF-131).

Solution

Heritage Packaging designed and fabricated a recloseable, shaped pouch from Corrlam™ VpCI® Barrier Laminate. This laminate features an ultra-tough Valeron® film outer skin and proven Cortec VpCI-126 Anti-Corrosion Film interior layer. The bag is made with a viewing window for easy access to a rifle's serial number and a Velcro closure which provides fast and secure rifle loading.

Testing

The Marine Corps needed to compare Heritage Packaging's new system to their existing system. Testing was conducted by USAMC LOGSA PSCC in Tobyhanna, PA during the spring & summer of 2003. Test samples were subjected to;

- Cold Temperature (-40 F, 24 Hour Duration)
- Temperature Shock (-40 F to 95 F)
- 1 High Temperature Cycle (91 to 160 F, 24 Hour Duration)
- Ten 24 Hour High Temperature / High Humidity Cycles (86 to 140 F, 95% RH)
- Free Fall Drop Test (2 Flat Faces From 3 Feet)
- Loose Cargo Vibration, Repetitive Shock (1 Hour Duration)
- Handling Throughout Testing and Inspection

Results

The test center in Tobyhanna deemed, "Bag very durable & easy to use; No detectable rust/corrosion on any rifle; No condensation/dampness inside any bag; Bag remained unchanged by environments (not saturated, repelled condensation); Performed equal to or better than MIL-PRF-131 with MIL-PRF-3420 in preventing rust/corrosion of M16 rifles under varying environmental exposures." Additionally; packaging productivity was increased from 3 rifles per hour to 4-6 rifles per minute.

Test Facility Photos

